

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN

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MONROE TRUCK EQUIPMENT, INC.,

Plaintiff,

v.

UNIVERSAL TRUCK EQUIPMENT, INC.,

Defendant.

OPINION & ORDER

14-cv-49-jdp

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Plaintiff, Monroe Truck Equipment, Inc., owns U.S. Patent No. 8,596,376, for an apparatus for mounting a wing plow to a vehicle. Plaintiff contends that defendant, Universal Truck Equipment, Inc., infringes the '376 patent with its Uni-Glide mounts. Defendant denies infringement and contends that the '376 patent is invalid under 35 U.S.C. § 103 because it is obvious and under § 112 for formal deficiencies.

Both parties have moved for summary judgment on infringement, and plaintiff has moved for summary judgment that the '376 patent is not invalid. The infringement case turns primarily on a claim construction issue: the meaning of "trailing links," a concept at the heart of the mounting apparatus claimed in the '376 patent. The court will adopt the construction proposed by the plaintiff, under which defendant's Uni-Glide mounts infringe the '376 patent. The court also concludes that defendant has not shown any formal deficiency in the '376 patent, and that defendant has not adduced evidence sufficient to sustain its burden to show that the '376 patent is obvious. Accordingly, plaintiff's motion for summary judgment will be granted; defendant's will be denied. The sole issue remaining for trial is damages.

## BACKGROUND

Plaintiff Monroe Truck Equipment, Inc., is a Wisconsin corporation that makes specialized truck bodies and truck equipment, including plows and plow mounts. Plaintiff owns the patent-in-suit, U.S. Patent No. 8,596,376 for “Support Apparatus for Securing a Wing Plow,” to Andrew Holverson and John Hromadka. The priority date is the date the application was filed, August 2, 2010. Plaintiff contends that its Para-Glide mount is covered by the ’376 patent.

Defendant Universal Truck Equipment, also a Wisconsin corporation, makes snow plows and other truck accessories. Defendant makes several models of wing plow mounts branded as “Uni-Glide,” which plaintiff accuses of infringing the ’376 patent.

A wing plow extends laterally from the side of a vehicle. In this part of the country, wing plows attached to trucks are commonly used to clear snow from the shoulders of roads, but wing plows are also used to smooth materials during road construction or repair. Generally, a beam is mounted to the front part of the vehicle frame, and the wing plow is mounted to the beam. Wing plows are often mounted with pairs of parallel arms that allow the plow blade to move up and down while in use. Wing plows suffer from a common problem: diving. When the inboard end of the plow encounters extra resistance, such as mass of heavy snow, the inboard end of the plow blade dives down and the outboard end pops up, possibly damaging the vehicle to which the plow is mounted.

The ’376 patent purports to solve the diving problem by mounting the plow using a set of “trailing links.” The basic idea is that the links extend back from the beam so that the plow is pulled, not pushed, forward. This trailing link configuration allows the plow blade to move both up and back when extra resistance is encountered, thus avoiding the downward diving that is characteristic of prior art wing plow mounts.

## ANALYSIS

### A. Jurisdiction

The court has jurisdiction over this case pursuant to 28 U.S.C. § 1338(a) because it arises under the patent laws of the United States.

### B. Summary judgment standard

In patent cases, as in civil cases generally, summary judgment is appropriate if defendant shows that “there is no genuine dispute as to any material fact and [it is] entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). In ruling on a motion for summary judgment, the court views all facts and draws all reasonable inferences in the light most favorable to the non-moving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986). Still, the nonmoving party must come forward with sufficient admissible evidence to support a reasonable jury verdict in its favor. *Delta Consulting Grp., Inc. v. R. Randle Constr., Inc.*, 554 F.3d 1133, 1137 (7th Cir. 2009).

### C. Claim construction

The evaluation of infringement and invalidity are both two-step processes that begin with claim construction as the first step. *See, e.g., Kemco Sales, Inc. v. Control Papers Co., Inc.*, 208 F.3d 1352, 1359 (Fed. Cir. 2000) (infringement); *Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1353 (Fed. Cir. 1999) (validity).

The centerpiece of defendant’s argument on both infringement and invalidity is that the links in its Uni-Glide mounts cannot be “trailing links” within the meaning of the ’376 patent. The illustrated embodiments in the ’376 patent all have links that extend straight back, parallel to the path of the vehicle. But the links in the Uni-Glide mount extend back and to the side at 45 degrees. The primary question in this case is thus one of claim construction: whether links deployed at 45 degrees count as “trailing links.” Defendant contends that with “trailing links”

properly construed to include only those that extend straight back, it does not infringe. But, so defendant's argument goes, if "trailing links" include those at 45 degrees, the patent is invalid.

### **I. Basic principles of claim construction**

A "bedrock principle" of patent law is that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citations and quotations omitted). Claim construction is primarily a matter of law for the court, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996), although it may involve some fact-finding that would be subject to clear error review on appeal. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 835 (2015).

In construing a claim term, the "objective baseline" is the "ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips*, 415 F.3d at 1313. "[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification" and the prosecution history. *Id.*

The "primary basis for construing [a] claim" and "the best source for understanding a technical term" is a patent's intrinsic evidence. *Id.* at 1315. Intrinsic evidence includes the patent and its prosecution history, related patents and their prosecution histories, and the prior art that is cited or incorporated by reference in the patent-in-suit and prosecution history. *Id.* at 1315-17. When a court relies solely upon the intrinsic evidence, the court's construction is a determination of law. *See Teva*, 135 S. Ct. at 841.

In construing claim terms, the court may also consider extrinsic evidence, which refers to all other types of evidence, including inventor testimony, expert testimony, documentary evidence of how the patentee and alleged infringer have used the claim terms, dictionaries,

treatises, and other similar sources. *Phillips*, 415 F.3d at 1317-18. Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* at 1317-19. Extrinsic evidence is, however, less reliable and less useful in claim construction than the patent and its prosecution history. *Id.* Intrinsic evidence trumps any extrinsic evidence that would contradict it. *Id.* at 1318.

Claim terms “are examined through the viewing glass of a person skilled in the art.” *Ferguson Beauregard/Logic Controls, Div. of Dover Res., Inc. v. Mega Systems, LLC*, 350 F.3d 1327, 1338 (Fed. Cir. 2003). A person of ordinary skill in the art is a person who would face and try to solve the same problems faced by the inventor. *See, e.g., KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007). The parties propose differing qualifications for one of ordinary skill in the art. Plaintiff proposes that the person of ordinary skill in the art is “(1) a person with over three years of experience in plow design, maintenance/service, and/or manufacturing; or (2) a person at least having a master’s degree in mechanical engineering or a similar field and at least three years of experience working with, designing, and/or manufacturing mechanical linkages.” Dkt. 49, at 5.<sup>1</sup> Defendant proposes that one of ordinary skill in the art works solely “in the field of wing plow use, construction, or maintenance for at least five years.” Dkt. 59, at 2.

Neither party has explained how the differences between these competing proposals would be material to any issue in the case.<sup>2</sup> But the court will adopt plaintiff’s proposal.

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<sup>1</sup> Pinpoint citations to docket entries refer to the pages assigned on the CM-ECF header, rather than to the internal page number.

<sup>2</sup> Defendant’s experienced-based definition of ordinary skill may be calculated to attack the testimony of plaintiff’s expert, Dr. Bower, who has not worked as a plow designer. An attack on the admissibility of Dr. Bower’s testimony would be futile. He has a Master of Science and PhD in Mechanical Engineering from the University of Wisconsin-Madison, coupled with his experience as a Senior Scientist at the University of Wisconsin-Madison Engine Research Center and as a Faculty Associate in the University of Wisconsin-Madison Mechanical Engineering Department. Dkt. 49 at 2. Even without direct experience in plow design, Dr. Bower is

Defendant's proposal includes a person with five years' experience in *servicing* or *maintaining* plows, and such a person would not from that experience have the requisite skill in *designing* plows. Plaintiff's proposal allows a person to achieve skill in the art either by practical experience in plow design, service or manufacturing, or by formal engineering training coupled with experience in mechanical linkages.

## 2. Terms to be construed

Plaintiff asserts infringement of claims 1-8 of the '376 patent, each of which includes the "trailing links" element. All of the disputed terms are in independent claim 1, which is quoted with the disputed claim terms emphasized and the sub-paragraphs designated with letters for ease of reference:

A support apparatus for securing a material moving wing plow relative to a vehicle, said support apparatus comprising:

[A] a beam having a first and a second end, said beam being rigidly secured to the vehicle;

[B] a plate having a first and a second extremity, said plate being rigidly secured to said beam;

[C] a first ***trailing link*** pivotally secured to said plate about a first pivotal axis;

[D] a second ***trailing link*** pivotally secured to said plate about a second pivotal axis;

[E] a support arm for supporting the wing plow, said support arm having a first termination and a second termination, said support arm being pivotally ***secured*** to said first trailing link about a third pivotal axis, said support arm being secured to said second ***trailing***

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eminently qualified to proffer opinions on validity and infringement in a case involving relatively simple mechanical systems. Defendant could, of course, try to use his lack of experience in plow design to diminish his credibility.

*link* so that during a plowing operation, the wing plow supported by said support arm moves smoothly over the material being moved so that a *potentially dangerous diving of the wing plow into the material in a vicinity of said support arm is avoided*;

[F] said support arm being pivotally secured to said second *trailing link*;

[G] said support arm being pivotally secured to said second *trailing link* about a fourth pivotal axis, said first, second, third and fourth pivotal axes being spaced and parallel relative to each other so that when the vehicle moves in a forward direction, said third and fourth pivotal axes trail behind said first and second pivotal axes relative to said forward direction of the vehicle;

[H] a further plate having a further first and a further second extremity, said further plate being rigidly *secured to said beam between said plate and said first end of said beam*;

[I] a further first *trailing link* pivotally secured to said further plate about said first pivotal axis;

[J] a further second *trailing link* pivotally secured to said further plate about said second pivotal axis; and

[K] an arm having a further first termination and a further second termination, said arm being pivotally secured to said further first *trailing link* about said third pivotal axis, said arm being pivotally secured to said further second *trailing link* about said fourth pivotal axis.

'376 patent, at 5:18-58.

a. “trailing link”

The primary claim construction dispute concerns the meaning of “trailing link.” Figure 1 of the '376 patent, reproduced below, shows a wing plow mounted to a vehicle using the claimed mount with the trailing links annotated in blue:

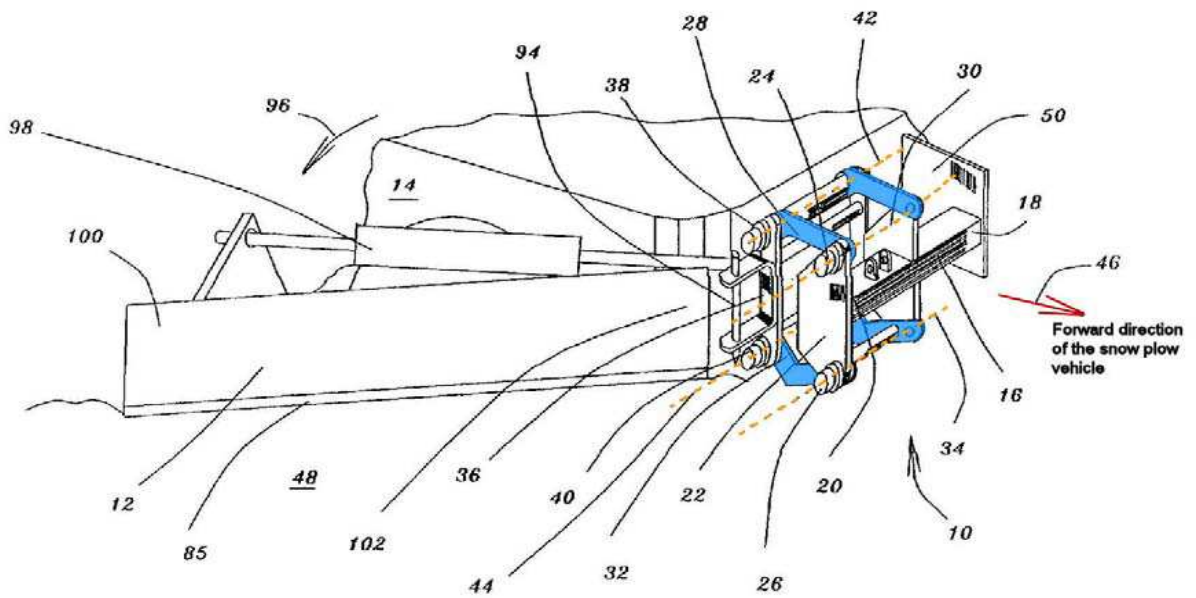


Figure 1

In this embodiment, a mounting plate (50) connects a beam to the front of the vehicle (14). The beam has a first end (18) and a second end (20). A plate (22) is mounted near the second end of the beam. A further plate (30) is mounted between plate (22) and the first end of the beam. Attached to the plate and the further plate are four trailing links (shown here in blue; they are assigned reference numbers 28, 32, 58, and 60 in the patent, but the numbers are not shown in Fig. 1). The other ends of the trailing links are attached to support arms (36, 62 (62 is not numbered in Fig. 1)). The wing plow (12) is mounted to one of the support arms (36). In operation, the trailing links can pivot up and down, while the plow blade stays substantially vertical and the working edge of the blade stays parallel to the surface being worked. If the plow encounters substantial resistance near the inboard “toe” of the plow, the plow blade can move up and back without diving into the material being worked, which would otherwise cause the outboard “heel” to pop up.

In the embodiments shown in the '376 patent, the trailing links extend straight back from the beam, parallel to the direction of the vehicle's forward movement. Defendant proposes



construing the claim element to require “trailing links” that extend *only* straight back: “a connecting piece that extends rearwardly and not laterally or sideways” from the direction of travel of the vehicle. Dkt. 41, at 5. Plaintiff proposes that a “trailing link” means a connector that extends “at least partly behind” its anchor point. *Id.* In other words, plaintiff proposes that “trailing link” would include connectors that extend back at an angle. The court will adopt plaintiff’s construction.

The court begins, as it must, with the claim language itself. The claim language will be given its plain meaning to one of skill in the art, unless the inventor has given a claim term a special definition or the inventor has clearly disavowed that plain meaning in the specification or during prosecution of the patent. *See Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

The term “trailing” necessarily implies a relation between two things: the trailing thing must necessarily be behind something else. The claim language explains the relationships and describes what trails what. Claim one provides that each trailing link is attached to one of the plates at a “pivotal axis.” These pivotal axes are identified as the “first pivotal axis” and the “second pivotal axis.” The trailing links are also connected to the support arms, again at pivotal axes. Those pivotal axes are identified as the “third pivotal axis” and the “fourth pivotal axis.” The four axes are annotated in yellow in Figure 1 shown above. Sub-paragraph G of Claim 1 explains what trails behind what, providing that the “third and fourth pivotal axes *trail behind* said first and second pivotal axes relative to said forward direction of the vehicle.” ’376 patent, at 5:44-46 (emphasis added). The pivotal axes on the support arms (the third and fourth pivotal axes) trail behind the pivotal axes on the plates (the first and second pivotal axes) even when the trailing links are at an angle to the forward direction of the vehicle.

There is nothing in the claim language that would require the trailing links to extend straight back, parallel to the direction of the vehicle. Nor is there any claim language that would exclude trailing links that lie at an angle to the direction of the vehicle. Thus, based on the language in sub-paragraph G, the links are “trailing” so long as they extend at least in part behind the point at which they are attached to the plates.

The court turns next to the specification, which, after the claim language itself, is the single best guide to the meaning of claim terms. *See Phillips*, 415 F.3d at 1315. The specification confirms and explains that the concept of “trailing” is the same concept as used in the claims. In the summary of the invention, the patent explains how the trailing arrangement of the pivotal axes produces the benefit of the invention:

The first, second, third and fourth pivotal axes are spaced and parallel relative to each other so that when the vehicle moves in a forward direction, the *third and fourth pivotal axes trail behind the first and second pivotal axes* relative to the forward direction of the vehicle. The arrangement is such that during a plowing operation, the wing plow supported by the support arm moves smoothly over the material being moved so that a potentially dangerous diving of the wing plow into the material in a vicinity of the support arm is avoided.

'376 patent, at 2:15-24 (emphasis added) (this passage is essentially repeated in the description of the drawings at 3:45-56). Again, as in the claim language, there is nothing in the specification that would rule out trailing links extending backward at an angle to the direction of the vehicle.

As defendant points out, all the embodiments disclosed in the '376 patent show trailing links that extend straight back. But the embodiments are only examples of the invention; they do not define the invention's scope. A court may not read the features of the embodiments into the claims as limitations. *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir.), *cert. denied*, 135 S. Ct. 719 (2014). The specification limits the scope of otherwise broad claim

language only if the limitation is clearly expressed. *See id.* at 1371-72. Nothing in the specification shows that trailing links include only links that extend straight back.<sup>3</sup>

Defendant’s main argument in support of its construction of “trailing links” is based on prosecution history disclaimer. A patentee may limit the meaning of an otherwise broad claim term by disavowing claim scope during the prosecution of the patent. *Id.* at 1372. Disavowal may take many forms, but it must be clear and unmistakable. *Seachange Int’l, Inc. v. C-COR Inc.*, 413 F.3d 1361, 1372–73 (Fed. Cir. 2005). According to defendant, the inventors disavowed a broad scope to avoid prior art, specifically, U.S. Patent No. 6,581,307 for “Wing Plow Assembly” to Jones, *et al.*, with a priority date of July 29, 2002. The patent office had rejected multiple claims as anticipated by Jones. In Jones, a wing plow is mounted to two pivoting “arms” that extend to the side of the vehicle. The inventors argued against the rejection, contending that Jones’s pivoting arms extended laterally or sideways, whereas their trailing links extended rearward:

[a]n extremely important feature of the present invention is the provision of the *trailing* links. These trailing links do not extend laterally or sideways as do the arms . . . of the applied ’307 reference. Rather, as the name implies, the links 28 and 32 *trail* or extend rearwardly from the plate 22 to which they are pivotally supported.

Dkt. 42-5, at 16 (original emphasis). Defendant contends that the inventors’ statements must be interpreted to mean that trailing links do not extend *at all* to the side.

But the inventors’ statements do not clearly and unmistakably disclaim links that extend back at an angle. The pivoting arms in Jones extended perpendicularly to the side. So the

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<sup>3</sup> Defendant cannot rely on plain language, because the common notion of “trailing” includes relationships that are not straight behind. For example, in a footrace, the other runners would be trailing the leader, even though none of them are *directly* behind the leader because they must stay in their own lanes.

inventors' statement that their trailing links do not extend laterally or sideways "as do the arms of the [Jones reference]," does not mean that the arms cannot extend to the side at all. The inventors did not need to restrict their claims to trailing links that extended straight back to avoid the Jones reference. And the language that the inventors used did not clearly and unmistakably express an intent to do so.

Defendant also invokes deposition testimony of the inventors, which it contends supports a narrow interpretation. The testimony of an inventor is extrinsic evidence that a court may consider, but it is not among the most helpful types of evidence. *See Roton Barrier, Inc. v. Stanley Works*, 79 F.3d 1112, 1126 (Fed. Cir. 1996). A patent, with its intrinsic evidence, is a public document, and the claims serve the important function of providing public notice of the scope of the patentee's right to exclude. An inventor's privately expressed view of what he thinks the patent covers is of little consequence. In this case, the testimony cited by defendant is not even informative about what the inventors intended to claim as their invention. In one passage cited by defendant, inventor Holverson testified that Hromadka came up with the idea of the trailing links. Dkt. 37 (Holverson Dep. 38:21-40:6). In another passage, Holverson affirms that the trailing link concept is important to the invention and that the Para-Glide's links extend straight back. *Id.* (Holverson Dep. 142:13-14). Hromadka made a similar statement. Dkt. 38 (Hromadka Dep. 80:2-17). The court finds, based on its consideration of the extrinsic evidence cited by defendant, that the inventors in this case do not provide any testimony that is informative of the scope of the claims in the '376 patent.

Plaintiff also appeals to extrinsic evidence, the reports of its expert, Dr. Bower, who cited the use of the term "trailing link" in patents and reference works dealing with automotive suspensions. Dkt. 39 and Dkt. 49. Dr. Bower's reports provide modest support for plaintiff's interpretation of "trailing links." Uses of the term "trailing" in automotive engineering reference

books suggest that those skilled in the art of vehicle suspensions would consider an arm or a linkage to be “trailing,” even if it is positioned at an angle.<sup>4</sup> Plaintiff’s evidence shows that those of skill in the related art of automotive suspensions would use the term “trailing” to refer to links that are deployed at an angle to the direction of vehicle travel. This extrinsic evidence falls short of definitively establishing that “trailing link” is a term of art with a specific meaning in the art of plow design. However, based primarily on the intrinsic evidence, the court concludes that trailing links deployed at an angle count as “trailing links” within the meaning of the ’376 patent.

Defendant’s motion for summary judgment sought construction only of the “trailing links” term. But in response to plaintiff’s motion for summary judgment, defendant disputes several more claim terms, to which the court now turns.

**b. “secured to said beam between said plate and said first end of said beam”**

The parties dispute the meaning of the phrase: “secured to said beam between said plate and said first end of said beam.” This dispute involves two issues: (1) whether the term “secured” requires that the further plate be *directly* attached to the beam; and (2) whether the term “between” refers to the location of the further plate itself or the point at which the further plate is attached to the beam.

The first issue can be addressed succinctly. Defendant’s main argument is that all the embodiments in the ’376 patent show the plates directly attached to the beam. But, once again, the features of the embodiments are not to be read into the claims as limitations. *Hill-Rom Servs., Inc.*, 755 F.3d at 1371. Defendant has provided no reason to depart from the plain

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<sup>4</sup> The court does not give much weight to the use of the term “trailing link” in U.S. Patent 4,029,338, because the terms used in a patent can be idiosyncratic, and they do not necessarily demonstrate usage common to those of skill in the art.

meaning of “secured,” which would include both direct and indirect attachments.

The second issue is more nuanced. Defendant contends that the word “between” in the phrase “secured to said beam between” refers to the location of the point at which the further plate is attached to the beam. Dkt. 79, at 4-5. Plaintiff contends that the claims require that the further plate is itself positioned between the other plate and the first end of the beam. Dkt. 83, at 12-13.<sup>5</sup> The court adopts defendant’s proposed construction of “between” because it is the most natural reading of the claim language.

Sub-paragraph H requires:

a further plate having a further first and a further second extremity,  
said further plate being rigidly secured to said beam between said  
plate and said first end of said beam.

The claim language could have said simply that the further plate is “located” or “positioned” between the plate and the first end of the beam. But it did not. Instead, the claim language uses “between” to modify “rigidly secured.” Neither party has pointed to any other evidence that bears on this claim construction issue. Accordingly, the court will construe “between” in sub-paragraph H to require that the place at which the further plate is attached to the beam be between the plate and the first end of the beam.

**c. “during a plowing operation . . . the wing plow . . . moves smoothly over the material being moved so that a potentially dangerous diving of the wing plow . . . is avoided”**

The parties also dispute the meaning of a portion of sub-paragraph E, which provides a functional limitation to the scope of the claimed invention:

during a plowing operation, the wing plow supported by said  
support arm moves smoothly over the material being moved so that

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<sup>5</sup> The importance of the distinction is not entirely clear, because defendant argues that in the Uni-Glide, neither the further plate nor its attachment point are located between the other plate and the first end of the beam. Dkt. 79, at 6.

a potentially dangerous diving of the wing plow into the material in a vicinity of said support arm is avoided.

This is an important limitation. Without it, a device similar to the mount in Jones, but with trailing links only one degree off from perpendicular, could fall within the scope of the claims of the '376 patent, even though such a device would not achieve the objective of the invention. But with this functional limitation, the patent covers only mounts with trailing links that are angled sufficiently rearward to achieve the benefit of avoiding the diving problem.

Construing this claim element involves two issues. The first is what constitutes a “plowing operation.” Defendant contends that moving dirt in a quarry does not constitute a plowing operation because “in operation, wing plows are not used to move dirt and the '376 patent does not say otherwise.” Dkt. 79, at 11. This argument is baseless. The '376 patent teaches that although wing plows are used for snow removal, they “are also used for smoothing limestone or other materials.” '376 patent, 1:15-17. The term “plowing operation” does not require judicial construction, and it includes moving dirt in a quarry with a plow.

The second issue is the meaning of “avoided.” Defendant contends that this term should be construed to mean “that diving not happen, ever.” Dkt. 79, at 8. Plaintiff contends that the term “avoided” does not need judicial construction, and offers that if the term must be construed, it means “prevented or substantially less likely.” Dkt. 83, at 15. The court will construe “avoided” to mean “significantly reduced,” primarily because this comports with the plain meaning of the word.

Defendant has almost nothing to support its position, pointing to statements in the patent about the diving problem being “avoided.” *See, e.g.*, '376 patent, 2:20-25. But this does not answer the question of what “avoid” means. There are two statements in the specification explaining that the invention “overcomes” the diving problem, which sounds somewhat more

categorical than a statement that the invention avoids diving. '376 patent, 1:40 and 1:53. But it is the claim language that governs, and nothing in the specification indicates that the inventors intended to restrict their invention to plow mounts that completely eliminated diving under any every condition.

The court's construction of "avoided" is consistent with that of other courts, which have consistently held that the term "avoid" is not an absolute term. *See, e.g., Skyhook Wireless, Inc. v. Google, Inc.*, No. 10-cv-11571, 2012 WL 4076180, at \*7 (D. Mass. Sept. 14, 2012) (holding that "avoid arterial bias" does "not require that all error be eliminated"); *Toshiba Corp. v. Lexar Media, Inc.*, No. 02-cv-5273, 2005 WL 6217120, at \*24 (N.D. Cal. Jan. 24, 2005) (construing "avoids" to mean "at times, avoids"); *Motorola, Inc. v. Analog Devices, Inc.*, No. 03-cv-131, 2004 WL 5633734, at \*21 (E.D. Tex. Mar. 23, 2004) ("[T]he word 'avoid' means to shun or to keep from happening, *i.e.*, to prevent or reduce the likelihood of."). It may be possible that some infringing products do not avoid diving as effectively as the preferred embodiments in the '376 patent. But products that use less-than-preferred embodiments that perform poorly still infringe. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1548 n.2 (Fed. Cir. 1989) ("inferior infringement is still infringement").

Extrinsic evidence also supports plaintiff's position. Defendant's own expert, Eugene Dubiel, testified that one should not speak in absolutes about the diving problem: "To say 'never' in my opinion, I would never say 'never.'" Dkt. 51 (Dubiel Dep. 279:2). Dubiel explained that "[y]ou never say 'never' in the plowing business because it's the most extreme conditions you can put a piece of equipment in is out in the middle of a storm." Dkt. 50 (Dubiel Dep. 75:11-14). Therefore, the court adopts the less absolute construction, "significantly reduced," as the construction of "avoided."



#### **d. Additional terms**

Plaintiff's brief proposes constructions of the terms "cooperating," "connected," and "smoothly." Defendant does not meaningfully dispute these terms. The court will give these terms their plain and ordinary meaning because they pose no significant ambiguity, and neither party has shown how they are material to infringement or invalidity. *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002) ("[U]nless compelled otherwise, a court will give a claim term the full range of its ordinary meaning.").

#### **D. Infringement**

The second step of the infringement analysis is to compare the properly construed claims to the accused device, to determine as a matter of fact whether every claim element is present, either literally or by a substantial equivalent, in the accused device. *Wright Med. Tech., Inc. v. Osteonics Corp.*, 122 F.3d 1440, 1443-44 (Fed. Cir. 1997). When, as in this case, the relevant structure and operation of the accused device is not genuinely disputed, the question of infringement turns on claim construction, and the question of infringement is amenable to resolution on summary judgment. *Gen. Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed. Cir. 1997).

Defendant's non-infringement position is that its Uni-Glide product does not meet three limitations that are present in each of the independent claims. Defendant contends that: (1) the Uni-Glide does not have trailing links; (2) the Uni-Glide does not avoid diving; and (3) in the Uni-Glide, the further plate is not secured to the beam between the plate and the first end of the beam.

##### **a. The Uni-Glide 45 includes trailing links**

Defendant effectively concedes that under plaintiff's construction of "trailing links," which the court has adopted, the Uni-Glide 45 has trailing links. No other conclusion is possible

based on a review of the drawings and photographs of the Uni-Glide 45. Dkt. 39. Defendant's witnesses confirm this conclusion. Dubiel testified that in the Uni-Glide 45, the third and fourth pivotal axes follow behind the first and second pivotal axes when the truck moves in a forward direction. Dkt. 50 (Dubiel Dep. 194:15-195:22). Hulett also expressly agreed that the pivotal axes three and four "follow" the other axes. Dkt. 70 (Hulett Dep. 182:22-183:19). For the reasons explained above, if the pivotal axes are in this trailing configuration, the links are trailing links. The links of the Uni-Glide 45 extend rearwardly, albeit at an angle, and they are therefore trailing links under the court's construction.

**b. The Uni-Glide 45 avoids diving**

Defendant contends that the Uni-Glide 45 does not meet this claim limitation because it does not completely eliminate diving. But under the court's construction, this limitation requires only that diving be substantially reduced. Plaintiff has adduced evidence to show that the Uni-Glide 45 substantially reduces diving. Dkt. No. 39-3, at 13, Dkt. 39-4, at 10, Dkt. 39-5, at 11. Defendant has pointed to evidence that the Uni-Glide 45 does not completely eliminate diving, Dkt. 79, at 9, but this is not material under the court's definition of "avoid." Defendant has not raised a genuine issue of disputed fact as to whether the Uni-Glide 45 avoids diving.

**c. The Uni-Glide 45 includes a further plate rigidly secured to the beam between the plate and the first end of the beam**

Defendant's position on this claim element has two parts. First, defendant contends that the word "secured" means directly attached to the beam. The court rejected the construction on which this contention is based, and thus it provides no basis for an infringement defense. In the Uni-Glide 45, the further plate is secured to the beam, even if indirectly.

Defendant's second issue concerns where the further plate is attached to the beam. Defendant asserts that the attachment point is not between the first end of the beam and the

other plate, but is instead “set off to the side relative to those other two parts.” Dkt. 79, at 6. But defendant’s argument is not supported by the cited diagram.

A review of the photographs of the Uni-Glide 45 prototypes and product shows instead that the further plate is indeed attached to the beam between the other plate and the first end of the beam. The spatial relationships are shown in the photograph designated as Figure 3 in the Bower report. Dkt. 39-5, at 4. The further plate (52) is attached to the beam (16) by means of a gusset (57), and another panel (26). The attachment points would be where the gusset and the panel meet the beam. Those points are quite plainly between the other plate (22) and the first end of the beam, which is the end of the beam that is out of the photo to the bottom left. Defendant’s witness, Hulett, confirmed this with by marking the attachment point on a drawing of the Uni-Glide 45 during his deposition.<sup>6</sup> Dkt. 86-1, at 6.

There is no genuine dispute that the Uni-Glide 45 meets this claim limitation. Because defendant has not raised any issue with any other claim element, the court concludes that plaintiff is entitled to summary judgment that defendant’s Uni-Glide 45 infringes claims 1-8 of the ’376 patent.

#### **E. Invalidity**

Defendant has the burden to prove the invalidity of the ’376 patent, 35 U.S.C. § 282, which it can sustain only by clear and convincing evidence. *Novartis Pharm. Corp. v. Watson Labs., Inc.*, No. 2014-cv-1799, 2015 WL 2403308, at \*6 (Fed. Cir. May 21, 2015). Because defendant has the burden on validity, plaintiff need not adduce any evidence in support of its motion for summary judgment. Plaintiff is entitled to summary judgment that its patent is not

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<sup>6</sup> The annotated illustration is somewhat confusing, but not in any way material to the issue at hand. Although the drawing bears handwritten notations “RH,” the drawing is actually of a left-hand mount, as indicated in the title block. Either way, it plainly shows the attachment point lying between the plate and the first end of the beam.

invalid if plaintiff can show that defendant does not have sufficient evidence to convince a reasonable trier of fact of the patent's invalidity. *See Massey v. Del Labs., Inc.*, 118 F.3d 1568, 1573 (Fed. Cir. 1997). Put another way, summary judgment is “not a dress rehearsal or practice run,” but the “put up or shut up moment” in which the party with the burden (and on invalidity that party is defendant) must show that it has evidence to convince a trier of fact to accept its version of the facts. *Nichols v. Nat'l Union Fire Ins. Co. of Pittsburgh, PA*, 509 F. Supp. 2d 752, 760 (W.D. Wis. 2007) (quoting *Schacht v. Wis. Dep't of Corr.*, 175 F.3d 497, 504 (7th Cir. 1999)). Because defendant has failed to adduce sufficient evidence, plaintiff is entitled to summary judgment that the patent is not invalid.

Defendant's invalidity argument suffers from a fundamental problem. Defendant's proffered expert, Dubiel, conceded that his understanding of the '376 patent was limited, and it is quite apparent from his testimony that he does not have any facility with the fundamental principles applicable to validity. *See, e.g.*, Dkt. 50 (Dubiel Dec. 142:17-143:4). Accordingly, plaintiff moved to strike portions of Dubiel's expert declaration, Dkt. 45, from the record. Dkt. 52. Specifically, plaintiff moved to strike: (1) paragraphs 6 and 7, and parts of exhibit D; (2) defendant's proposed finding of fact 20; and (3) the corresponding parts of defendant's motion of summary judgment. The court will grant plaintiff's motion to strike in part, excluding those portions of Dubiel's declaration that relate to validity.<sup>7</sup> However, Dubiel is qualified to testify concerning the operation of the accused products, and the knowledge of those of skill in the art, and thus he may serve as a fact witness.

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<sup>7</sup> The motion to strike might have been mooted by defendant's informal withdrawal of Dubiel's report insofar as it concerns obviousness. Dkt. 86-2. But to be abundantly clear about the state of the record, the motion is granted.

Although the plow mounts at issue in this case are not extremely complicated technology, the technology is not so simple that it could be readily understood by a lay juror. The court will evaluate defendant's arguments on the merits, but the lack of expert testimony on validity would be reason enough to grant this part of plaintiff's motion and declare that, for the purposes of this case at least, the '376 patent is not invalid. *Centricut, LLC v. Esab Grp., Inc.*, 390 F.3d 1361, 1370 (Fed. Cir. 2004).

**a. Indefiniteness**

Defendant initially asserted that the claims of the '376 patent were indefinite, contrary to the requirements of 35 U.S.C. § 112(b). But defendant's summary judgment opposition brief does not address indefiniteness at all. Positions not developed with meaningful argument are waived, and thus defendant has waived any challenge to the validity of the '376 patent on the grounds that it is indefinite. *See Bonte v. U.S. Bank, N.A.*, 624 F.3d 461, 466 (7th Cir. 2010) (“[f]ailure to respond to an argument . . . results in waiver.”); *see also Cent. States, Se. & Sw. Areas Pension Fund v. Midwest Motor Express, Inc.*, 181 F.3d 799, 808 (7th Cir. 1999) (“Arguments not developed in any meaningful way are waived.”).

**b. Written description and enablement**

The court will consider together the written description and enablement requirements, which are closely related. Both derive from 35 U.S.C. § 112(a), which provides:

(a) In general. — The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

This sub-section generally addresses what is required of the specification, and it imposes three separate requirements on the patentee. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1346-47 (Fed. Cir. 2010).

The first requirement is what is typically referred to as the written description requirement. The essence of this requirement is that the patentee, “as part of the bargain with the public, must describe his or her invention so that the public will know what it is and that he or she has truly made the claimed invention.” *AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1298 (Fed. Cir. 2014). The standard for satisfying the requirement is whether the disclosure “allows one skilled in the art to visualize or recognize the identity of the subject matter purportedly described.” *Alcon Research Ltd. v. Barr Labs., Inc.*, 745 F.3d 1180, 1190 (Fed. Cir. 2014) (citations and quotation marks omitted). The point of the written description requirement is to prevent the patentee from claiming more than he or she invented. Whether a claim satisfies the written description requirement is a question of fact. *Id.*

The second requirement is enablement. To provide an enabling disclosure, “the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation.” *MagSil Corp. v. Hitachi Global Storage Technologies, Inc.*, 687 F.3d 1377, 1380-81 (Fed. Cir. 2012) (citations and quotations omitted). Whether a claim meets the enablement requirement is a question of law, although that determination may be based on underlying factual determinations that would be reviewed for clear error. *Alcon Research Ltd.*, 745 F.3d at 1188.

The third requirement is that the patentee disclose the best mode contemplated of carrying out the invention. After the America Invents Act, the patentee is required to disclose the best mode in the course of prosecuting the patent, but the failure to do so is no longer a basis for invalidating an issued patent. 35 U.S.C. § 282.

Defendant contends that several features of the claimed invention are not supported by adequate disclosure in the specification.

### **1. Attaching the wing plow to the support arm**

Defendant asserted that the patent failed the written description requirement because it did not sufficiently describe how the wing plow is attached to the support arm. But it appears that defendant has abandoned this position because it did not address this issue at all in its opposition brief. Dkt. 79. The issue is therefore waived. *See Bonte v. U.S. Bank, N.A.*, 624 F.3d at 466. In any case, plaintiff has shown beyond genuine dispute that one skilled in the art would know how to attach a plow to a support arm. *S3 Inc. v. NVIDIA Corp.*, 259 F.3d 1364, 1371 (Fed. Cir. 2001) (“The law is clear that patent documents need not include subject matter that is known in the field of the invention and is in the prior art, for patents are written for persons experienced in the field of the invention.”). The court therefore concludes that the patent includes an adequate written description of the support arm for supporting a wing plow limitation.

### **2. Avoiding diving**

Defendant challenges the supporting disclosure of the functional limitation in subparagraph E, which requires that the support apparatus allows the plow to move smoothly over material and avoid diving. Defendant’s main argument is that plaintiff did not disclose in the patent that diving is more effectively avoided if the forward pivotal axes are higher than the rearward ones. Plaintiff chose instead to withhold that information as a trade secret. The embodiments shown in the patent have the forward pivotal axes at about the same height as the rearward ones. Thus, according to defendant, plaintiff is attempting to have it both ways, by seeking patent protection for an invention, while holding aspects of that invention as a trade secret. Dkt 79, at 11-14. Defendant casts this argument as one demonstrating both the

inadequacy of the written description and the failure of enablement.

There are several flaws in defendant's argument about the functional "avoiding diving" limitation. First, defendant's argument is really that plaintiff has failed to disclose the best mode contemplated by the inventor, as required under 35 U.S.C. § 112(a). But that is no longer a basis for establishing the invalidity of a patent. 35 U.S.C. § 282(b)(3)(a) (after amendment, providing that "the failure to disclose the best mode shall not be a basis on which any claim of a patent may be canceled or held invalid or otherwise unenforceable"). Defendant cannot show invalidity by re-casting a failure to disclose the best mode as a failure of written description or a failure of enablement. The patentee is not required to disclose the best mode to satisfy either the written description requirement or the enablement requirement. The inventors here did not claim the relative heights of the axes as part of their invention, and thus the failure to disclose that feature does not establish invalidity under § 112(a).

Second, the specification itself shows that the inventors were in full possession of the invention as claimed, which is a plow mount with trailing links that reduces diving. The specification provides:

When the ram 72 is controllably released from the source of hydraulic pressure 78, the wing plow 12 lowers under gravity until the working edge 85 of the wing plow 12 contacts the material 48 to be moved. When forward movement of the vehicle 14 as indicated by the arrow 46 causes the working edge 85 of the wing plow 12 to engage the material 48, such material 48 is moved. However, if the working edge 85 of the wing plow 12 encounters unusual resistance from the material 48, the trailing links 28, 32, 58 and 60 permit the wing plow 12 to smoothly rise and ride over such unusual resistance in the material 48 rather than permitting the inboard end 102 of the wing plow 12 to dig into or dive into such material 48 which often occurs when the prior art laterally extending links are employed.



'376 patent, at 4:56-67-5:1-2. This passage unquestionably shows to one of skill in the art (or to anyone for that matter) that the inventors were in possession of the invention that they claimed. They did not claim as an element of their invention a plow mount in which the forward pivotal axes were higher than the rearward axes, and thus they were under no obligation to show that they were in possession of that knowledge in the patent. Given this description, no reasonable jury could find that plaintiff failed to satisfy the written description requirement concerning the functional limitation of reducing diving.

Third, as far as enablement goes, the burden is on defendant to adduce evidence that one of skill in the art could not make or use the claimed invention without undue experimentation. *Alcon Research Ltd.*, 745 F.3d at 1188. Defendant has no evidence that *any* experimentation would be necessary for one of skill in the art to practice the invention as claimed. The specification—indeed the independent claims themselves—teach one of skill in the art how to construct a wing plow mount with trailing links. Although it is not part of the enablement requirement, the specification explains in considerable detail how the trailing links operate to avoid diving. Without evidence that any experimentation is necessary, defendant has failed to sustain its burden to show that one of skill in the art could not make and use the invention without undue experimentation.

### **3. Trailing links at an angle**

Defendant also challenges the supporting disclosure for claims that would cover trailing links that extend back at an angle, rather than straight back. This argument is a corollary to its claim construction position on the meaning of “trailing links.” Recall that defendant argued that “trailing links” must be construed to include only those that extend straight back, in part because all the embodiments shown in the patent have links that extend straight back. Defendant argues that the specification does not describe or teach links that extend back at an

angle, and if the claims are construed to cover such a structure, they are invalid for want of an adequate written description and enablement.

The court starts with enablement. Defendant is correct that an enabling disclosure must teach one of skill in the art to practice the full scope of the claims without undue experimentation. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1378 (Fed. Cir. 2007). Defendant argues that this case is directly analogous to *Liebel-Flarsheim* because, so defendant contends, in both cases the inventors once disparaged or taught away from the alternative that they later sought to claim. The inventors in *Liebel-Flarsheim* had claimed that a pressure jacket was needed for high-pressure injectors, but later they successfully argued for a broad claim construction that covered high-pressure injectors *without* pressure jackets. The Federal Circuit held that the specification did not teach how to practice a high-pressure injector without a pressure jacket, and that the broader claims were therefore not enabled. Disparagement or teaching away can be strong evidence that undue experimentation would be required to implement that alternative embodiment. *Id.* at 1379.

But this case is distinguishable from *Liebel-Flarsheim* in two important ways. First, contrary to defendant's contention, the inventors in this case did not disparage trailing links that extended out at an angle. The inventors taught away from the links in Jones, which extended perpendicularly out to the side, and which would not allow the plow blade to move backward as well as up, thus avoiding diving. As discussed above in the claim construction section, the specification contains nothing that disparages or rules out trailing links positioned at an angle.

Second, the defendant in *Liebel-Flarsheim* had extensive evidence concerning the undue experimentation that would have been required to develop the disparaged alternative, a high-pressure injector without a pressure jacket. The inventors there testified that they had tried and

failed to make such an injector. *Id.* at 1379. But defendant in this case has not adduced any such evidence. The inventors on the '376 patent made prototypes with the trailing links extending straight back, but there is no evidence that they tried and failed to make a plow mount with trailing links at an angle. Nor is there any evidence that defendant, having seen plaintiff's Para-Glide product (with trailing links extending straight back), had any difficulty in coming up with the Uni-Glide (with its links positioned at 45 degrees). The invention at issue in this case is, after all, in the predictable field of the mechanical arts, where disclosure of a single embodiment commonly enables broader claims. See *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534 (Fed. Cir. 1987). The inventor is "not required to describe in the specification every conceivable and possible future embodiment of his invention." *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1344 (Fed. Cir. 2001). Defendant here would have to make a showing supported by evidence that one of skill in the art could not make a plow mount with links extending back at an angle without undue experimentation. Because defendant's enablement defense is unsupported by any evidence, plaintiff is entitled to summary judgment on this point.

The court turns now to the written description issue. Defendant's brief has little to offer on this point, addressing the topic in barely a page. Dkt. 79, at 13-14. Its argument, in essence, is that trailing links extending back at an angle are not expressly described in the patent. But again, the inventor is not required to disclose every possible future embodiment. *Rexnord Corp.*, 274 F.3d at 1344. All that is required is that the disclosure reasonably conveys to one of skill in the art what has been invented. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). As explained in the claim construction section above, the claims and the specification describe trailing links by reference to the position of the pivotal axes, and trailing links extending back at an angle fit this description, thus falling within the scope of the claims. Trailing links extending back at an angle are not disclosed in the specification in those precise

words, but the written description requirement has never been construed to require that level of express description. *Ariad Pharm., Inc.*, 598 F.3d at 1351-52.

Whether a written description is adequate is question of fact, requiring an objective inquiry into the four corners of the specification from the perspective of one skilled in the art. *Id.* at 1351. Defendant has adduced no evidence, and it has not presented any sustained argument, that would show that the specification of the '376 patent fails to adequately describe trailing links that extend back at an angle. Plaintiff is entitled to summary judgment on this point.

**c. Obviousness**

A patent claim is obvious “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art.” 35 U.S.C. § 103(a). Obviousness is a question of law, based on several factual inquires, which include: (1) the level of ordinary skill in the art; (2) the scope and content of the prior art; (3) the differences between the claimed subject matter and the prior art; and (4) secondary considerations of non-obviousness, such as commercial success, long-felt need, and unexpected results. *See Graham v. John Deere Co.*, 383 U.S. 1, 17-18, (1966); *see also Sciele Pharma Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1259 (Fed. Cir. 2012).

Defendant cited 31 references and “exemplary combinations” in its invalidity contentions to argue that the asserted claims are obvious. Dkt. 76-35, at 15, 20-22. Plaintiff has moved for summary judgment against each of these combinations. Dkt. 74, at 95-141.

Defendant offers nearly nothing against plaintiff’s ample showing. Defendant’s only arguments, presented in a scant two-and-one-half pages, are that: (1) the problem of diving was known in the art before the filing of the '376 patent; and (2) expert evidence on obviousness is

not always necessary. Dkt. 79, at 17-20. Defendant complains that plaintiff's 142-page summary judgment brief was abusive, but defendant overlooks the fact that it contended that the '376 patent was obvious on the basis of dozens of art combinations. Plaintiff carefully addressed ten of these combinations, and addressed many more in appropriate summary fashion. Dkt. 74, at 88-123. But defendant has not made a serious presentation to show that even one of these combinations raised a genuine issue of material fact concerning obviousness. Defendant's position can probably best be summed up by its statement: "Logic, reason and common sense dictate that if a party must spend 142 pages to explain why summary judgment should be granted, then it really ought to be denied." Dkt. 79, at 20. But actually, logic, reason, and common sense dictate the opposite result: because defendant has not made any substantial showing in opposition to plaintiff's well-supported motion, plaintiff's motion for summary judgment that the '376 patent is not obvious will be granted.

The court rejects defendant's argument that because obviousness is ultimately a legal question, expert evidence is not necessary here. It is true that expert evidence is not an invariable requirement. Where the technology is easily understandable to an ordinary layperson, a defendant can present an obviousness case without expert evidence. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1240 (Fed. Cir. 2010). But expert evidence may be required in cases in which the technology lies beyond the grasp of the layperson. *Id.* at 40 n.5.

The technology in this case is not overwhelmingly complicated, but expert testimony on obviousness is required here for two reasons. First, the engineering involved is more complex than the simple lock devices in *Wyers*, and both sides proposed levels of ordinary skill far beyond that of the ordinary layperson. Second, and more important, the critical trailing link limitation is not found in the prior art cited by defendant. This is not a case in which defendant can show that the challenged patent combines known elements in the prior art. If defendant

were to sustain its obviousness case, expert evidence would be required to show how one of skill in the art would be able to combine the teachings of the cited references to move beyond the lateral links in Jones to the trailing links in the '376 patent. Without the support of expert testimony, no trier of fact could conclude that the '376 patent is a predictable, commonsense result of combining the Jones patent with other references. *See Perfect Web Technologies, Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009) (reliance on commonsense is meaningless without some “reasoned explanation” for why a patent should be invalidated on obviousness grounds). The court concludes that defendant cannot sustain its burden to show the invalidity of any claim of the '376 patent without expert evidence. Therefore plaintiff is entitled to summary judgment on this issue.

In view of the paucity of defendant’s showing, the court’s treatment of the substantive aspects of the obviousness case can be succinct. It is undisputed that the diving problem was well known in the art before the '376 patent; the '376 patent expressly acknowledges as much. '376 patent, 1:33-39. Jones (and the corresponding commercial embodiment from Burke Truck and Equipment) has a system of linkages that connect a wing plow to a vehicle. However, the linkages in Jones extend to the side, perpendicular to the direction of the vehicle. This perpendicular arrangement would allow the plow to move upward, but not backward, when it encounters unusual resistance. Jones was considered during prosecution of the '376 patent, and the claims were allowed over Jones.

Defendant contends that Jones, combined with other references, shows that the claims of the '376 patent are obvious. The court will consider here one such illustrative combination, Jones with Great Britain Patent No. 2,172,037 to Lupton. An embodiment of Lupton is depicted below:

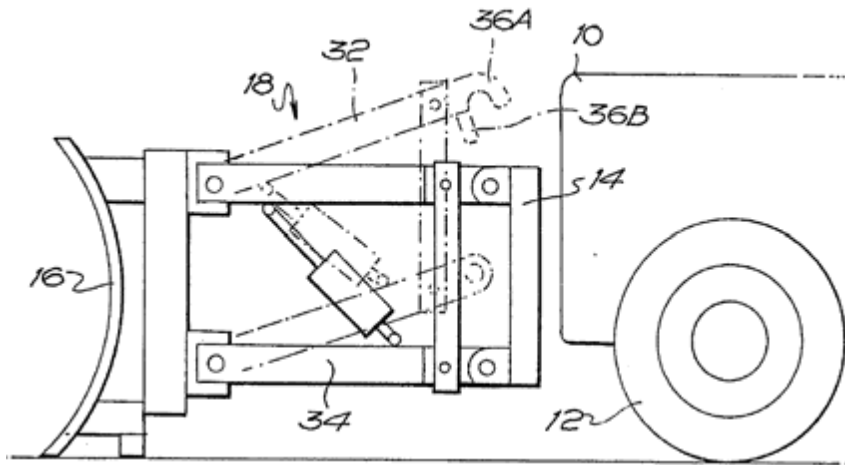


Figure 5: Great Britain Patent No. 2,172,037 (“Lupton”)

The Lupton mount is similar to the Jones mount, except that it extends forward to support a front plow, not a wing plow. Dkt 84, at 160-62. Lupton includes support arms (32) and (34) that are configured to push the plow (16) from a pivoting mount at the front of a vehicle (10). Neither Jones nor Lupton show trailing links that pull the plow, and that would allow the plow blade to move up and back in reaction to a mass of heavy material, thereby avoiding diving. The combinations of Jones with U.S. Patent No. 4,565,018 (Oya I) and U.S. Patent No. 3,587,751 (Schmidt) suffer from the same deficiency. Dkt. 49, at 18-26.

U.S. Patent No. 4,570,367 (“Oya II”), adds nothing to the analysis because it too, fails to disclose trailing links. Oya II purports to offer a solution to the diving problem using shock absorbers, but that is of no import to the obvious analysis. The question here is not whether others had recognized the problem of diving, or even whether they had come up with solutions to the problem. The question is whether the solution claimed by the inventors on the ’376 patent would have been obvious to those of skill in the art at the time of the invention. Plaintiff makes an unrebutted strong showing that none of the combinations offered by defendant include trailing links, which is the heart of the solution claimed in the ’376 patent.

But the fact that others attempted to solve the diving problem raises another issue: secondary considerations of non-obviousness. *See generally Apple Inc. v. Int'l Trade Comm'n*, 725 F.3d 1356, 1366 (Fed. Cir. 2013) (secondary considerations may be “the most probative and cogent evidence in the record” (citations and quotation marks omitted)). Plaintiff shows that the '376 patent met a long-felt need, received industry praise, and achieved commercial success. Dkt. 74, at 134-39. Defendant does not address secondary considerations at all in its brief, and it does not genuinely dispute the underlying factual bases.

In sum, defendant's obviousness arguments are unsupported by needed expert evidence, and they rely merely on conclusory assertions and gross generalities. Defendant cannot sustain its burden with such a showing, and, accordingly, plaintiff is entitled to judgment as a matter of law that the claims of the '376 patent are not invalid as obvious.

#### CONCLUSION

This opinion and order resolves liability in favor of plaintiff, leaving only the question of damages to resolve at trial, which remains scheduled for August 17, 2015. The final pretrial conference, currently set for August 4, will be rescheduled to August 11 at 4 p.m.

#### ORDER

IT IS ORDERED that:

1. Defendant's motion for summary judgment, Dkt. 40, is DENIED.
2. Plaintiff's motion for summary judgment, Dkt. 72, is GRANTED.



3. Plaintiff's motion to strike, Dkt. 52, is GRANTED with regard to invalidity only, as described above.

Entered July 31, 2015.

BY THE COURT:

/s/

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JAMES D. PETERSON

District Judge