

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TRAILBLAZER ATTACHMENTS LLC
Petitioner,

v.

LANE SHARK USA, LLC
Patent Owner

Case PGR2021-00069
Patent No. 10,905,044

**PATENT OWNER LANE SHARK USA'S
PRELIMINARY RESPONSE**

June 25, 2021

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LIST OF EXHIBITS

EXHIBIT	DOCUMENT
2001	U.S. Patent 10,470,364
2002	U.S. Patent App. 16/790,577 Certificate of Correction
2003	Declaration of Fred P. Smith in Support of Patent Owner's Preliminary Response
2004	Patent Owner Disclaimer of Claims 3, 4, 10-15, and 17
2005	Order Denying Motion to Stay, dated May 21, 2021, ECF #122
2006	Scheduling Order, dated February 16, 2021, ECF #96
2007	Defendants' Answer to Plaintiff's Second Amended Complaint and Trailblazer Attachments LLC's Amended Counterclaims, dated February 23, 2021, ECF #99
2008	Memorandum Supporting Motion for Preliminary Injunction, dated December 9, 2019, ECF #17
2009	Defendants' Brief in Opposition to Plaintiff's Motion for Preliminary Injunction, dated December 31, 2019, ECF #40
2010	Plaintiff's Reply Supporting Motion for Preliminary Injunction, dated January 7, 2020, ECF #45
2011	REDACTED Transcript of Motion Hearing held on January 14, 2020 before the Honorable J. Ronnie Greer, dated February 7, 2020, ECF #62
2012	U.S. District Court Docket for Case 19:cv-00326
2013	Plaintiff's Supplemental Brief re Invalidity Defenses, dated February 21, 2020, ECF #65
2014	Defendants' Supplemental Brief on Invalidity, dated February 21, 2020, ECF #68
2015	Memorandum Opinion and Order regarding Motion for Preliminary Injunction and Motion to Dismiss, Dated November 30, 2020, ECF #89

EXHIBIT	DOCUMENT
2016	Memorandum in Support of Plaintiff's Second Motion for Preliminary Injunction, dated February 15, 2021, ECF #95
2017	Docket Order Denying Motion for Protective Order and Denying Motion to Stay, dated June 1, 2021, ECF #125
2018	Plaintiff's Initial Infringement Contentions, dated June 4, 2021
2019	Declaration of Travis Odom in Support of Plaintiff's Motion for Preliminary Injunction, dated December 9, 2019, ECF #18
2020	Amended Scheduling Order, dated May 25, 2021, ECF #123
2021	Email from Eileen Rumpfelt to Plaintiff's Counsel regarding Defendant's first rolling production, dated June 15, 2021
2022	Defendant Trailblazer Attachment LLC's First Set of Requests for Production of Documents, dated June 4, 2021
2023	Defendant Trailblazer Attachment LLC's First Set of Interrogatories, dated June 4, 2021
2024	Defendants' Responses to Plaintiff's First Interrogatories, dated April 9, 2021
2025	Defendants' Responses to Plaintiff's First Requests for Admission, dated April 9, 2021
2026	Third Declaration of Travis Odom in Support of Plaintiff's Motion for Preliminary Injunction, dated January 7, 2020, ECF #46
2027	Email thread regarding use of District Court Discovery in PGR proceeding, dated April 13-29, 2021

I. INTRODUCTION

Patent Owner Lane Shark USA, LLC (“Lane Shark,” “Patent Owner,” or patent “Applicant”) submits this Preliminary Response pursuant to 37 C.F.R. § 42.207 in opposition to the petition for post-grant review PGR2021-00069 (the PGR “Petition”) filed by Trailblazer Attachments, LLC (“Petitioner”) regarding claims 1-17 of U.S. Patent No. 10,905,044 (Ex. 1001, the “’044 patent”) on March 12, 2021. This Preliminary Response is filed within three months of the Notice issued March 25, 2021.

Trailblazer has failed to demonstrate that it is more likely than not that at least one claim of the ’044 patent is invalid for obviousness or for want of written description under Section 112, the only bases of each of its grounds for instituting review. As discussed more fully herein, the Petition should be denied because:

- Petition Grounds 3 and 5 pertain only to disclaimed claims;
- Petitioner’s Grounds 1, 2, and 4 rely on a primary reference which lacks at least four limitations of the challenged claims;
- Petitioner’s written description argument relies on an unproposed claim construction which, even if accepted, does not prove indefiniteness; and
- Every factor of the Board’s discretionary analysis favors denying institution:
 - Petitioner’s motion to stay the parallel litigation was denied;
 - Trial will complete before the Board’s final written decision deadline;
 - The parties and district court have invested significant resources in the 18-month old parallel litigation;

- Petitioner's arguments are shared between the PTAB and district court;
- Petitioner and Patent Owner are parties here and in the parallel litigation; and
- Secondary considerations of non-obviousness and fundamental fairness counsel for resolution of Petitioner's invalidity arguments in the parallel litigation, not on an incomplete record in the PTAB.

For each of these reasons, and as discussed more fully herein, the Petition must be denied.

II. BACKGROUND

A. File History for the '044 Patent and Related Family Applications

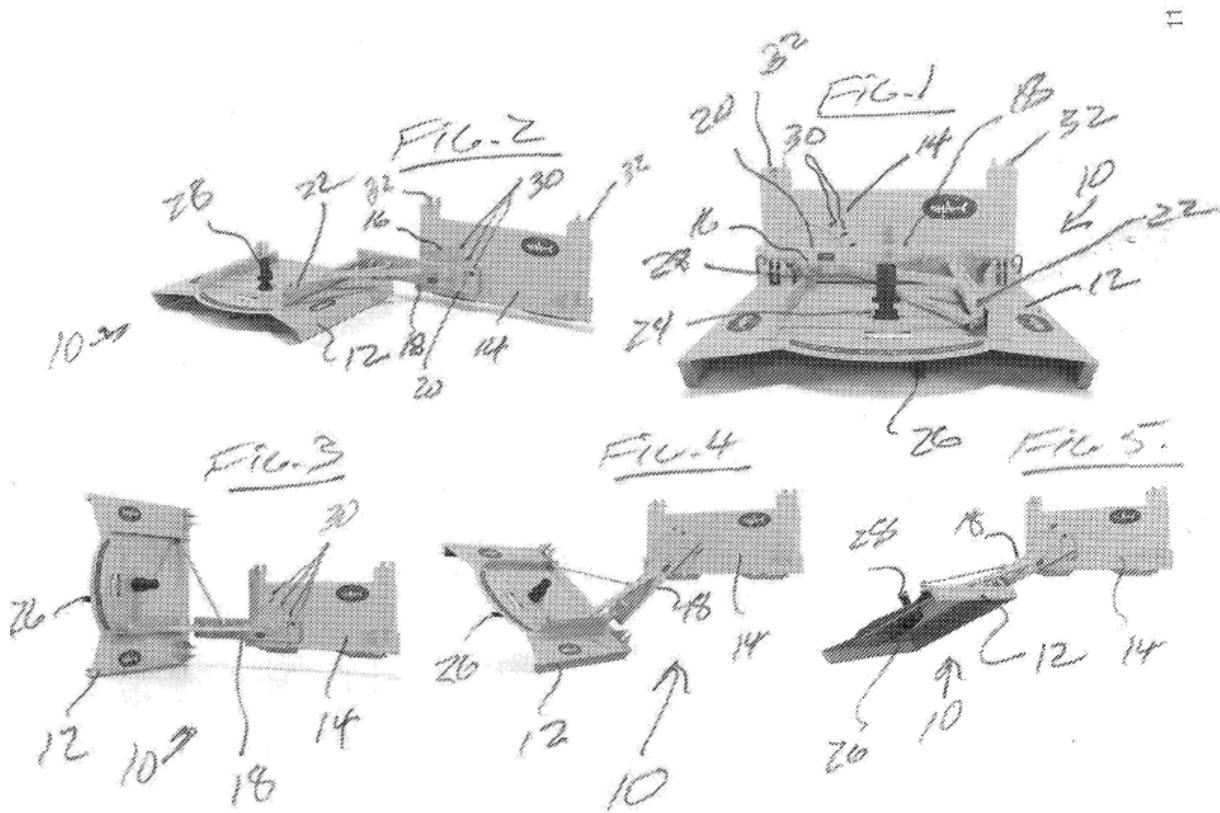
On January 30, 2018, Lane Shark filed U.S. Provisional Patent Application No. 62,623,630 (the "'630 provisional"). *See* Ex. 1003. The '630 provisional disclosed a novel and inventive brush cutter product, and the figures filed with that provisional application comprise annotated pictures of Lane Shark's flagship brush cutter product—the Lane Shark LS2 brush cutter. *See, e.g.*, Ex. 1003 at 11. The '630 provisional described shortcomings in the art: "known cutting devices generally are permanently attached to a machine and are not capable of being removed from one machine and attached to another machine," and "cutting devices are not manipulable in any manner except for minor movements up and down. No known cutting devices include the ability to rotate the cutting device for cutting at an angle. . .". *Id.* at 12. Because of these shortcomings, the provisional patent

described that “there is a need in the art for a cutting device that is adjustable for attachment to, and use with, a variety of other machines and that is adjustable up and down and that is rotatable as well as desired.” *Id.* The Applicant thus disclosed that it “is an object of this invention to provide an improved removably attachable adjustable cutting device that is connectable with a variety of machines, that is adjustable both up and down and is rotatable **such that cutting at an angle is provided** and that is easy to use and economical in construction.” *Id.* at 13 (emphases added).

The '630 provisional patent figures show how the LS2 product—a preferred embodiment of the inventions disclosed in the '630 provisional—achieves these improvements over the art. Figure 1 shows the LS2 brush cutter with mounting plate 14 attached to main adjustable arm 18 which is in turn connected to cutting deck 12. *See id.* at 17-18. Rotation adjustment holes 30, found in the mounting plate and the main adjustable arm, allow the user to use a locking pin to adjust the angle of the main adjustable arm when the cutting deck is extended to the side of the mounting plate. *Id.* The '630 provisional application further discloses that the mounting plate is connected to the main adjustable arm via a hinge rod, and the cutting deck can rotate up and down on an axis perpendicular to the mounting plate. *Id.* at 11 (compare Figs. 2-5). The arm extending between the cutting deck and the main adjustable arm secures the cutting deck at varying angles about the

hinge rod. *Id.* at 20. The mounting plate of the LS2 product is equipped with hardware allowing for easy attachment to a variety of tractor makes and models.

Id. at 18, 24.



Id. at 11.

The Patent Owner filed U.S. Patent Application No. 16/253,290 on January 22, 2019, claiming the priority benefit of the '630 provisional. *See* Ex. 1004 at 175. The '290 application was largely consistent with the disclosures of the '630 patent, though the Patent Owner substituted line drawings for the annotated pictures of the '630 provisional application, and the Applicant added images and

specification language to more fully disclose brush guard features of the disclosed brush cutter device. *See* Ex. 1004 at 190-95, 199-213. The Applicant sought and received Track One examination of its application. *See id.* at 150, 182. The examiner eventually allowed 18 claims in that application which are today published in U.S. Patent No. 10,470,364 (“the ’364 patent”). *See* Ex. 2001.

During prosecution of the ’290 application, the Patent Owner filed a continuation application, application no. 16/679,706. *See* Ex. 1002 at 209. This continuation application was, in turn, divided into a second continuation, numbered 16/790,577 (“the ’577 application”). The ’577 application matured into the ’044 patent. *See id.*; Ex. 1001 at 1. The ’577 patent application, like the predecessor applications in its patent family, describe that prior art brush cutter products could not easily be used between tractors, and could not be adjusted to useful cutting angles. *See* Ex. 1001 at 9 (1:19-55). In view of these shortcomings in the art, Patent Owner disclosed and sought protection for a brush cutter apparatus that could easily be used on different makes and models of tractors, and which could easily be adjusted to multiple useful cutting angles. *See id.* During the course of prosecution, and without acquiescing to the examiner’s asserted obviousness art (*see, e.g.*, Ex. 1002 at 41), the Patent Owner eventually amended proposed claim language and received notice that 17 claims were allowable. *See* Ex. 1002 at 23. Issued claim 1 is representative.

1. A cutting apparatus, comprising:

a mounting plate;

a cutting deck;

a motor operably coupled to the cutting deck;

a blade;

a support structure having a first end coupled to the mounting plate and a second end coupled to the cutting deck; and

a support arm interconnected between the support structure and the cutting deck;

wherein the support structure and the support arm are configured to selectively enable positioning the cutting deck in a first position relative to the mounting plate, a second position relative to the mounting plate, and at least one other position relative to the mounting plate, the first position being angled substantially 90 degrees relative to the second position, and the at least one other position being different from the first and second positions; and

wherein the cutting deck is manually adjustable from at least one of the first or second positions to the at least one other position, the first position correlating with a first receiving structure of a set of receiving structures, each receiving structure of the set of receiving structures being configured to receive a locking pin, wherein the set of receiving structures include a set of holes formed in the mounting plate.

Ex. 1001 at 12 (8:5-31); Ex. 2002 (certificate of correction changing order of issued claim limitations).¹ Claim 1 and its dependent claims are valid over every challenge raised in the Petition.

III. CLAIM CONSTRUCTION

The inventions claimed in the '044 patent are simple, mechanical devices, described using ordinary and customary terms in the art. For this reason, Patent Owner proposes ordinary and customary constructions for each term below. Because Petitioner fails to appreciate the ordinary and accepted meaning of these terms in its Petition (and, indeed, its Petition relies on the Board's misreading of the terms of the '044 patent), Patent Owner sets forth such definitions for sake of clarity.

A. Legal Standards

In a PGR, the Board construes terms “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b).” 37 C.F.R. § 42.200(b).

“Claim construction, or interpretation, is a question of law.” *Innova/Pure Water v. Safari Water Filtration*, 381 F.3d 1111, 1115 (Fed. Cir. 2004). The

¹ The final stanza of claim 1 originally followed the “cutting deck” stanza of claim 1; this organization of the claim was errant, and it was corrected by a certificate of correction on March 9, 2021. *See* Ex. 2002

language in the claims should be given its 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, *i.e.*, as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). This analysis considers “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.* at 1314.

B. Person of Skill in the Art

Petitioner proposes that a person of ordinary skill in the art (“POSITA”) disclosed in the '044 patent would have a degree in mechanical engineering or equivalent knowledge gained through experience, and two years of experience manufacturing, using, and/or designing agricultural machines or attachments for such machines. Pet. at 23.

Patent Owner asserts that a POSITA would have a bachelor's degree in mechanical or agricultural engineering with two years of experience designing heavy equipment or would have several years of actual heavy equipment design experience. *See* Ex. 2003 ¶46.

Under either party's proposed level of ordinary skill, the POSITA would be familiar with concepts, considerations, hardware, and prior art common in the field.

C. "Forward-Facing Surface"

Petitioner alleges that the Patent Owner assigns no special meaning to the "forward-facing surface" claim limitation of claims 2, 8-10, 14, and 15, so the term should be construed according to its ordinary and customary meaning, which it asserts is "*a surface directed at, near, or belonging to the front or forepart of.*" See Pet. at 24. Petitioner notes that claim 7 recites "rear-facing surface" with respect to the same claimed mounting plate structure, and that this surface is claimed as having machine attachment devices. *Id.* at 25. On this basis, Petitioner concludes that the rear-facing surface of the mounting plate faces the machine (e.g., the tractor), and the forward-facing surface of the mounting plate will face away or outward from the tractor. *Id.*

While Lane Shark agrees that "forward-facing surface" should be given its ordinary and customary meaning in the context of the intrinsic record, Petitioner's proposed meaning contradicts the intrinsic context of the patent. "Forward" is commonly understood as a relative term, and one that requires context to define.²

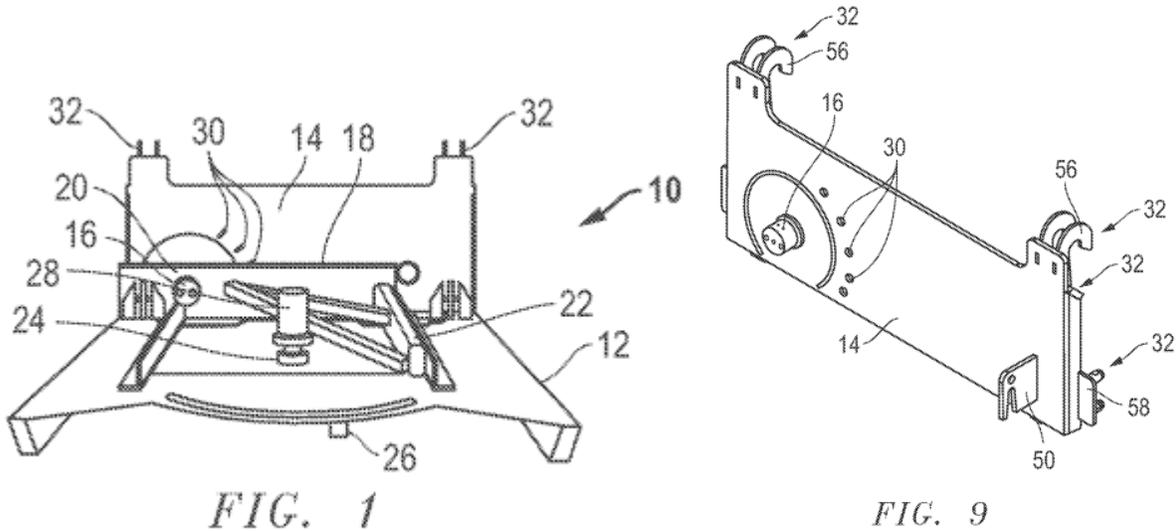
² Dictionary definitions, including the dictionary definition provided by Petitioner, consistently teach that "forward" is a relative term. See, e.g., <https://www.merriam->

One can determine that an object faces forward only where there is a basis to determine where the front and/or rear of a reference object is. Determinations about an object's front or back sides/portions depend entirely upon the context. Criteria used to make such determination may include facts about an object's intended purpose, ordinary use, or some other defining characteristic. Ex. 2003 (Declaration of expert witness Fred Smith) ¶¶55-64. The front of a house or other building will face the street and ordinarily be the primary point of ingress and egress for its occupants. Conversely, the front of an automobile is not its primary point of ingress and egress (i.e., the driver's side door), but rather the portion of the vehicle which faces the ordinary direction of travel, notwithstanding the fact that the automobile can travel in reverse. The front of a gun is at the end of its barrel. The front of a smartphone or television is the viewing screen. Thus, "front" is a highly context-dependent concept, and correlates with a primary purpose, use, or operation of an object.

The specification discloses the context of what "forward-facing" would mean to a POSITA, i.e., where the front of the claimed cutting apparatus is found. Figure 1 depicts a "front perspective view of the removably attachable adjustable

[webster.com/dictionary/forward](https://www.webster.com/dictionary/forward) ("near, being at, or belonging to the forepart . . . to or toward what is ahead or in front"); <https://www.dictionary.com/browse/forward> ("toward or at a place, point, or time in advance; onward; ahead . . . toward the front"); <https://dictionary.cambridge.org/us/dictionary/english/forward> ("toward the direction that is in front of you").

cutting apparatus of the present invention.” Ex. 1001 at 4:3-5. Figure 9 discloses “a front perspective view of the mounting plate of the invention of FIG. 1.” *Id.* 4:24-25.



Later in the patent, the specification discloses:

Push plate 62 as shown in the figures, is attached to the front of cutting deck 12 and serves, when present as the main point of contact for all material prior to the material being impacted by the cutting blades 26. Push plate 62 acts as a guard for the exposed blades 26 when the blades 26 extend past the front of cutting deck 12 and as a guide to compress material for more consistent cutting prior to contact with the cutting blades 26.

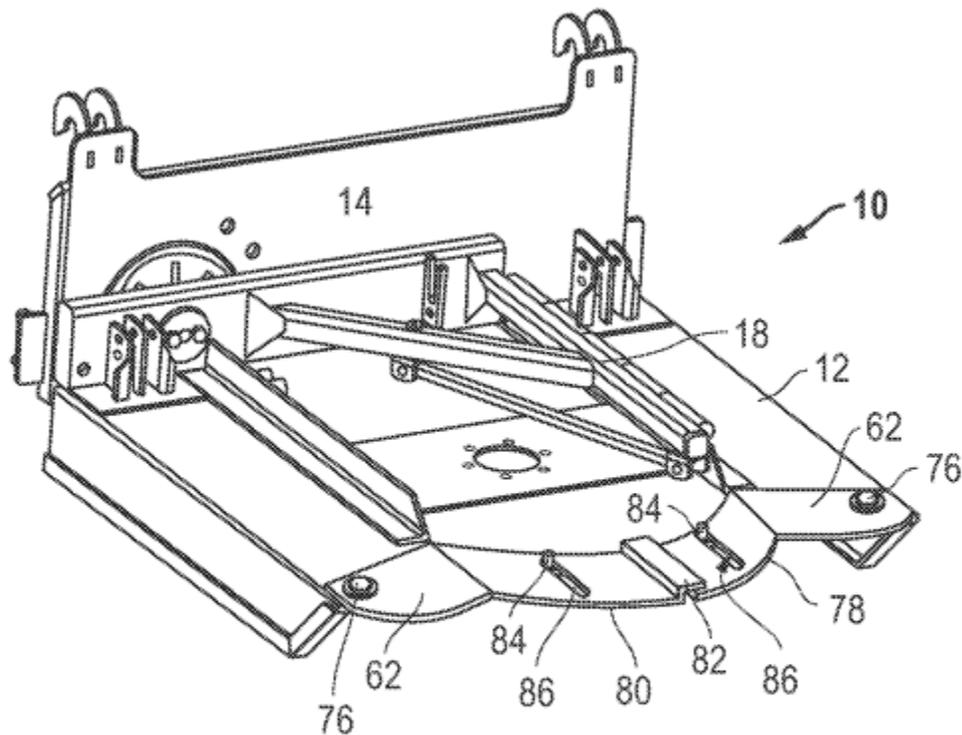


FIG. 14

Id. 7:10-17 (emphases added); Fig. 14. This disclosure is significant for a number of reasons. It discloses the “front” of the cutting deck, which is an essential component of the claimed cutting apparatus. This is the portion of the cutting apparatus that does not have a metal skirt around the blades to prevent material from coming into contact with the cutting deck blades and to block cut material from being ejected by the spinning blades. In fact, the push plate 62 is situated on the “front” of the cutting deck specifically to act as the main point of contact for all material prior to that material being cut by the cutting blades. *See id.* A POSITA

would understand that when mounted on a tractor or other machine, and with the blades spinning, the operator would drive the tractor in a manner that causes the front of the cutting deck to move toward the brush to be cut, causing the brush to come into contact with the blades and be severed by the blades. Ex. 2003 ¶¶55-64. In view of the specification, a POSITA would clearly understand “front” and “forward-facing” to refer to the edge of the cutting apparatus that engages, receives and cuts brush and vegetation—*i.e.*, the front of the cutting deck. See *id.* ¶¶55-57, 63-64,

This understanding of the front or forward portion of a cutting device is found throughout tractor attachment cutter art, and it does not vary even where a tractor is mounted to the rear or the side of a vehicle. See, *e.g.*, *id.* ¶¶58-64. The context of the specification and the art in general makes a plain and ordinary interpretation of the “forward-facing surface” limitation straightforward for a POSITA. The “forward-facing surface” of the mounting plate is *the surface of the mounting plate that is oriented toward the typical direction of travel of the cutting deck*. *Id.* ¶64. This construction of the term is entirely consistent with the teachings of the specification, which depict and describe a mounting plate with a surface facing toward the open end of the cutting deck and the direction of travel of the cutting apparatus.

Petitioner's proposed construction is inconsistent with this correct understanding of the term. A "*surface . . . near or belonging to the front or forepart of*" an object is not always forward-facing. For example, the front door of a house has one forward-facing surface and another facing the rear of the home, even where the door is near or belongs to the front of the home. *See id.* ¶¶50-55, 58.

Petitioner even misapplies this incorrect construction in material ways. For example, Petitioner argues that dependent claim 7's recitation of "machine attachment devices" on the "rear-facing surface" of the mounting plate means that the rear surface of the mounting plate "would face towards the machine. By extension, the forward-facing surface would face outward from the machine . . .". *Pet.* at 25. A page later, Petitioner again equates "forward-facing" with "outward from the tractor". *Id.* at 26. But "outward" and "forward" are distinct concepts, and a surface is not "*directed at . . . the front or forepart of*" an object merely because it faces outward from that object. *Ex.* 2003 ¶52. Moreover, Petitioner argues that "forward-facing surface" is not with respect to the machine onto which the claimed cutting apparatus is placed, so it is unclear why Petitioner insists that the forward facing surface always point away from a tractor. *See Pet.* at 72 n.5. Thus, Petitioner's arguments stray from its own construction.

The rear-facing surface of the mounting plate in claim 7 is not the rear face because it has attachment devices or because it faces the tractor,³ but because this surface faces away from the direction of travel and intended use of the cutting apparatus. Ex. 2003 ¶¶55, 60-62. So, too, with the forward-facing surface. It does not face forward because it faces away from the tractor, it faces forward because it is oriented toward the typical direction of travel of the cutting deck. *See, e.g., id.* ¶62.

Accordingly, the “forward-facing surface” limitation should be construed to mean *the surface of the mounting plate that is oriented toward the typical direction of travel of the cutting deck.*

D. The “Positioning” Limitations

Claim 1 recites, *inter alia*, “the support structure and the support arm are configured to selectively enable positioning the cutting deck in a first position relative to the mounting plate, a second position relative to the mounting plate, and at least one other position relative to the mounting plate.” Ex. 1001 at 12-13.

Claim 10⁴ recites, *inter alia*, “the support structure and the support arm being configured to enable positioning of the cutting deck in a horizontal position, a

³ The term “tractor” is nowhere recited in the claims.

⁴ As discussed *infra*, Patent Owner disclaimed claim 10. Despite this disclaimer, Patent Owner includes discussion of the positioning limitations of claim 10 because they are part of the file history and can inform the proper construction of related limitations of claim 1.

vertical position, and at least one other position.” *Id.* at 13. These terms will be referred to herein as the “positioning limitations.” The claim language of the positioning limitations is not highly technical and is easily understood in the context of the claimed invention. The positioning limitations describe a cutting apparatus with a cutting deck supported by a support structure and a support arm that may be used to adjust the cutting deck to three positions. Claim 1 describes these positions with reference to the mounting plate, and claim 10 describes them as vertical, horizontal, and a third position that is neither vertical nor horizontal.

Again, proper claim construction requires understanding the context in which the positioning limitations appear in the claims. For example, claims 1 and 10 are both drawn to a “cutting apparatus” equipped with a “cutting deck” and a motor that is “operably coupled to the cutting deck.” *Id.* at 12-13. Thus, the positioning limitations are presented to a POSITA in the context of an apparatus, deck, and motor operably connected for the purpose of cutting brush.

Claim terms, even ordinary, non-technical terms, “are not construed in a vacuum.” *Demarini Sports v. Worth*, 239 F.3d 1314, 1327 (Fed. Cir. 2001). Instead, claims must be read in the context of the intrinsic evidence: the other claims, the specification, and the prosecution history, in view of the knowledge a POSITA brings to bear reading those terms. *See id.* Here, the specification provides necessary and helpful context to interpret the positioning limitations. For

example, Figure 2 depicts the cutting deck extended horizontally to the side of the mounting plat and Figure 3 depicts this same orientation but the cutting deck is rotated to a vertical position.

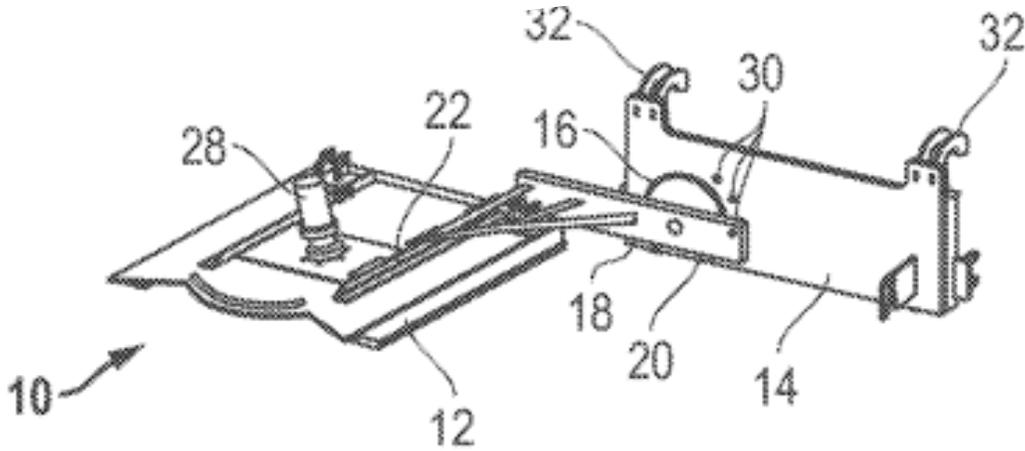


FIG. 2

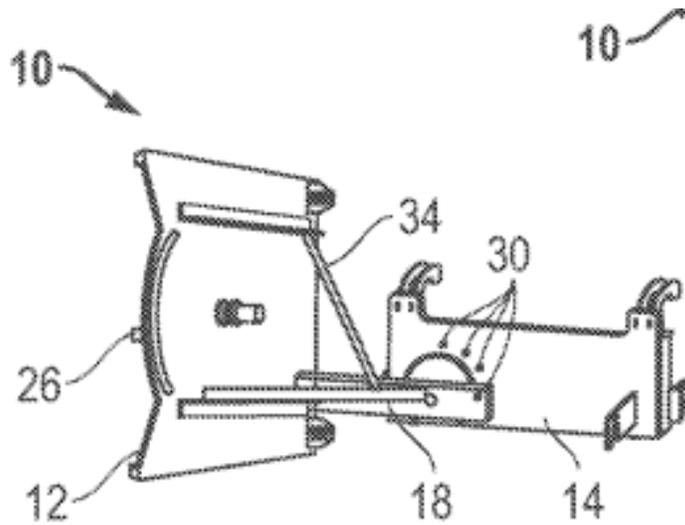


FIG. 3

See Ex. 1001 at Figs. 2-3; 4:6-13.

The specification identifies shortcomings in the prior art that then inventor hopes to address:

A problem exists with regard to the use of cutting devices. By way of example only and not by limitation, large cutting devices available in the prior art are fixed devices in operation. That is, the [prior art] cutting devices are not manipulatable in any manner except for minor movements up and down. No known cutting devices include the ability to mechanically rotate the cutting device for cutting at an angle, for example only and not by limitation. Further, known cutting devices generally are permanently attached to a machine and are not capable of being removed from one machine and attached to another machine. Those few known cutting devices that are removable are only attachable to one particular machine.

Thus, there is a need in the art for a cutting device that is adjustable for attachment to, and use with, a variety of other machines and that is adjustable up and down and that is mechanically rotatable for use from horizontal to vertical, and positions in between as well, as desired.

Ex. 1001 at 9 (1:33-48) (emphases added).

The specification then describes the advances of the inventions of the '044 patent to address the identified problems in the art:

It therefore is an object of this invention to provide an improved removably attachable adjustable cutting device that is connectable with a variety of machines, that is adjustable both up and down and is rotatable such that cutting at an angle, from horizontal to vertical and positions in between, is provided and that is easy to use and economical in construction. . . .

Accordingly, the [] removably attachable adjustable cutting apparatus of the present invention, according to one embodiment, includes a cutting deck, a mounting plate, a main pivot point in the mounting plate and a main adjustable arm with a first end connected with the mounting plate at the main pivot point and with a second end connected with the

cutting deck such that the cutting deck is adjustable from a horizontal to a vertical position and to any position in between.

Id (1:49-67).

Accordingly, there is a direct correlation between the shortcomings of the art and the advances of the inventions described in the '044 patent. The inventors disclosed a “removably attachable” cutting apparatus that could be taken off of one tractor and used on another, and which could be adjusted “for use” from horizontal to vertical and positions in between for “cutting at an angle.” *See* Ex. 2003 ¶¶66-67.

The patentee consistently described through the specification the importance of the ability to reposition the brush cutter so as to afford the tractor operator with greater freedom to cut at a chosen angle. *See, e.g.*, Ex. 1001 at 11 (5:59-62) (“Applicant has found that adjustment support arm 34 provides increased stability and enhanced operability of cutting deck 12 when in a non[-]horizontal position as shown in the figures.”) (emphasis added). Importantly, the specification does not teach that repositioning of the brush cutter affords a user some other benefit over the art separate and apart from enhanced utility when using the cutting apparatus to make cuts (e.g., the patent never describes configurable deck positions as providing more convenient storage of the brush cutter when not in use). Ex. 2003 ¶¶66-67.

The Patentee's prosecution statements similarly teach that the apparatus is configured to allow for cutting when arranged in various positions. *See* Ex. 1003 at 25 (“in any of the positions the Main Adjustment Arm (06) is supported by the Main Support Arm (10) to keep the LS2's structure stable while in transition or operation. Extending forward roughly 24 inches from the Main Adjustment Arm (06) is the Main Adjustment Hinge (05). This allows the Cutting Deck (01) to move 180 degrees around the Main Adjustment Arm (06) from the horizontal cutting positions to the vertical cutting positions.”) (emphases added). In these circumstances—where the patentee describes a shortcoming in the prior art, discloses an invention with features that overcome this shortcoming, and the patent specification consistently and exclusively describes the features of its inventions as overcoming this shortcoming in the art—related claim limitations must be interpreted to give effect to the inventions described as addressing the limitations of the prior art. **Thus, any reference to “position[s]” in the claims necessarily means cutting positions.**

The Federal Circuit's analysis in *Curtis-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1375 (Fed. Cir. 2006) is instructive. In that case, the claims recited an “adjustable dynamic, live loaded seat” limitation and the dispute centered on the scope of “adjustable.” *See id.* at 1377-79. The trial construed the term broadly such that “the live loaded seat can be changed in a manner that is ‘not

limited by any time, place, manner, or means of adjustment.” *Id.* at 1378.

Although the Federal Circuit acknowledged that the trial court's construction followed a “logical path” relying on the broad ordinary meaning of adjustable, applying claim differentiation, and avoiding “an impermissible narrowing of that claim term to the structure of the preferred embodiment,” *id.*, the court ultimately concluded that the trial court erred for not recognizing the impact of statements in the specification describing how the invention overcomes problems in the prior art.

While logical, this chain of reasoning errs because it places too much emphasis on the ordinary meaning of “adjustable” without adequate grounding of that term within the context of the specification of the '714 patent. . . . In this case, the '714 patent's specification describes the deficiencies of the prior art, including the conventional requirement of removing the entire head unit from the coke drum during de-heading The '714 patent specification further extols this invention for overcoming these deficiencies of the prior art The '714 patent then associates the adjustability of the live loaded seat with that critical aspect of the invention. In other words, the patent stresses that adjustment occurs during operation and without removal of the head unit[.]

This court commends the district court's reluctance to narrow the claims to the preferred embodiment. In this instance, however, that care is admirable but misplaced. This case does not evince a situation where a party is attempting to import a limitation from the specification into the claims. Claim 14 already contains the “adjustable” limitation. Thus, the claim construction task requires this court to discern the meaning of that term in the context of this invention and field of art. The specification provides that context and substantial guidance on the meaning of “adjustable.” In light of the specification, the term

“adjustable” means that the dynamic, live loaded seat can be adjusted while the deheading system of claim 14 is in use.

Id. at 1378-79 (emphasis added). The Federal Circuit held that because “the specification stresses that the invention is ‘adjustable’ during de-heading, any construction to the contrary is not consistent with the overall context of this invention and this field of art as described in the specification.” *Id.* at 1381.

The principles discussed in *Curtiss-Wright* inform the proper construction of the positioning limitations of the '044 patent. Although the term “position” can carry a broad meaning in the abstract, the context of the '044 patent does not allow such a broad construction. As stated above, the '044 patent faults prior art brush cutters for being “not manipulatable” such that they could not “rotate . . . for cutting at an angle.” Ex. 1001 at 9. The '044 patent then touts the claimed invention for addressing the “need in the art for a cutting device that is . . . adjustable up and down and that is mechanically rotatable for use from horizontal to vertical, and positions in between. . .” *Id.* (emphasis added). Indeed, the patent explains that it is an “object of the invention” to provide a cutting device “that is adjustable both up and down and is rotatable such that cutting at an angle, from horizontal to vertical and positions in between.” *Id.* (emphasis added); *see also id.* at 11 (“adjustment support arm 34 provides increased stability and enhanced operability of cutting deck 12 when in a non[-]horizontal position as shown in the

figures.”) (emphases added). Accordingly, the context of the '044 patent does not allow one to reasonably conclude that the claimed cutting apparatus is merely capable of being adjusted to at least three positions, but rather compels the conclusion that the claimed cutting deck is configured to be positioned **and used to cut in at least the vertical position, the horizontal position and positions in between**, thereby achieving an advancement over the shortcomings of the art. Consequently, any construction of the position limitations that encompasses non-operable positions “is not consistent with the overall context of this invention and this field of art as described in the specification.” *Curtiss-Wright*, 438 F.3d at 1381.

Accordingly, the positioning limitations are properly construed as follows: configured to selectively enable positioning the cutting deck in a first *cutting* position relative to the mounting plate, a second *cutting* position relative to the mounting plate, and at least one other *cutting* position relative to the mounting plate. Ex. 2003 ¶¶65-67.

E. “Mounting Plate”

Claims 1 and 10 both recite a “mounting plate.” Ex. 1001 at 12-13. The constituent terms “mount/mounting” and “plate” are non-technical terms and each is used consistent with its plain and ordinary meaning in the art. Ex. 2003 ¶68. To

“mount” something is to “to attach to a support.”⁵ A plate, in the mechanical arts, is a thin and flat structural element with a thickness much smaller than its height and width dimensions.⁶ Figures 9 and 10 depict a front perspective view of the mounting plate and a view of the mounting plate with SSQA (“skid steer quick attach”) and hook-and-pin tractor attachment devices, respectively. *See* Ex. 1001 at 10 (4:24-28); Figs. 9, 10.

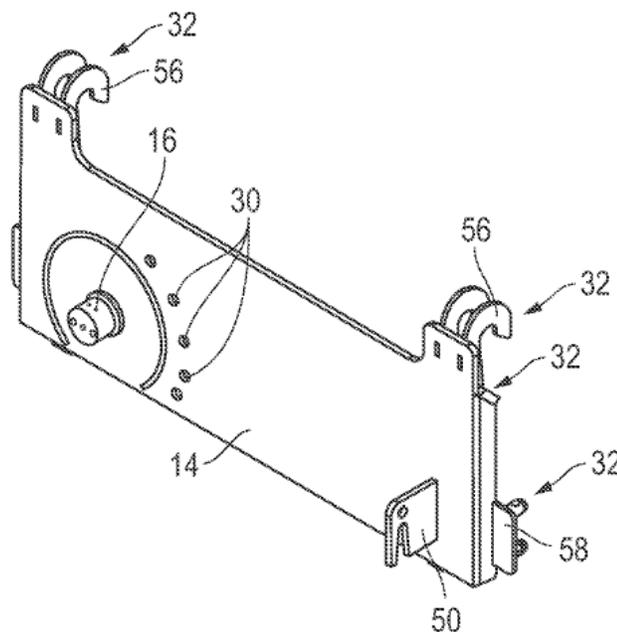


FIG. 9

⁵ <https://www.merriam-webster.com/dictionary/mount>.

⁶ Steele, Charles R.; Balch, Chad D. (2009-04-02). “Introduction to the Theory of Plates” (PDF), Stanford University, Retrieved Dec. 14, 2020. (“A plate is a structural element which is thin and flat. By “thin,” it is meant that the plate’s transverse dimension, or thickness, is small compared to the length and width dimensions.”); <https://www.collinsdictionary.com/us/dictionary/english/plate> (“A plate is a flat piece of metal, especially on machinery or a building. ...a recess covered by a brass plate”); <https://www.merriam-webster.com/dictionary/plate> (“a smooth flat thin piece of material; **b**[: forged, rolled, or cast metal in sheets usually thicker than 1/4 inch (6 millimeters)”);

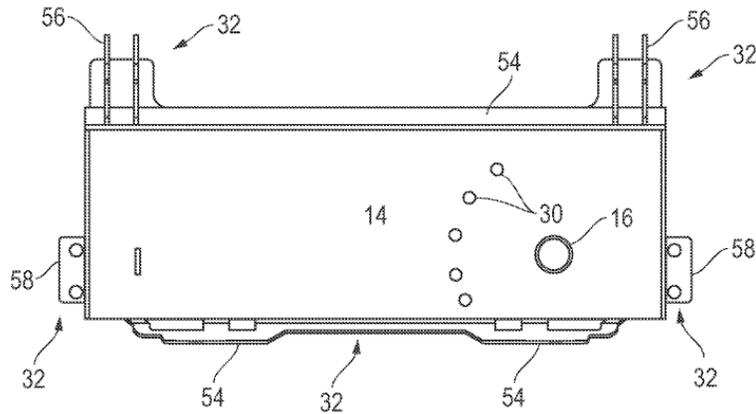


FIG. 10

Figure 2 shows the mounting plate (14) with rotation adjustment holes (30) attached to a main adjustable arm (18) which is, in turn, connected to a cutting deck (12). *See id.* at 11 (5:54-6:31).

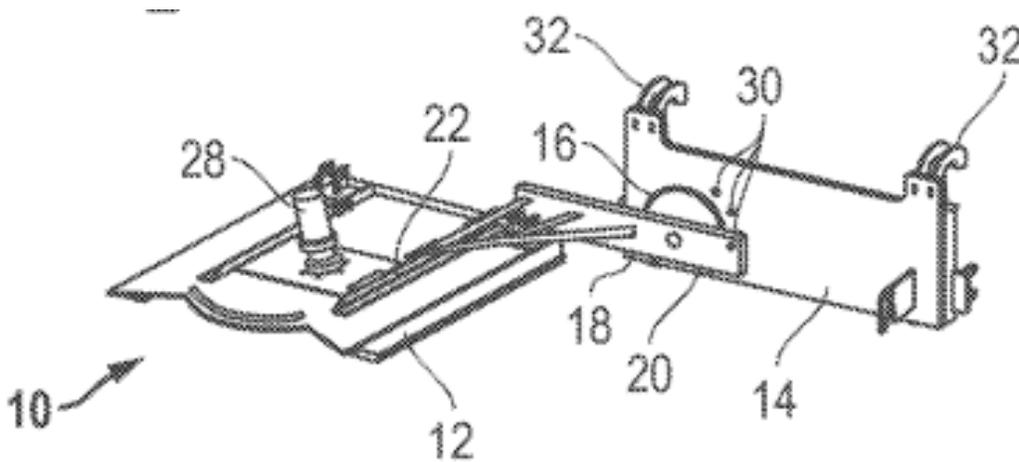


FIG. 2

As the foregoing demonstrates, the Patent Owner described the claimed mounting plate consistent with its plain and ordinary meaning, and for that reason,

the plain and ordinary meaning of “mounting plate” should govern here: a largely thin and flat planar element with a thickness much smaller than its height and width dimensions and which is configured to be attached to a tractor or the like.

Ex. 2003 ¶71.

F. “Manually Adjustable”

Independent claim 1 of the '044 Patent requires the deck to be “manually adjustable.” This is a simple term, and one used in its plain and ordinary sense, which should govern its interpretation. Merriam-Webster defines *manually* as “by hand and not by machine: by manual method.” <https://www.merriam-webster.com/dictionary/manually>. Other dictionaries define “manual” similarly:

- a. Of or relating to the hands: manual skill.
- b. Done by, used by, or operated with the hands.
- c. Employing human rather than mechanical energy: manual labor

<https://www.ahdictionary.com/word/search.html?q=manual>.

- a. Manual is used to talk about movements which are made by someone's hands.
- b. Manual means operated by hand, rather than by electricity or a motor.

<https://www.collinsdictionary.com/dictionary/english/manual>.

Thus, the plain and ordinary meaning of “manually adjustable,” as understood by a POSITA in view of the specification, is: “adjustable by hand and not by machine.” Ex. 2003 ¶¶72-73.

IV. THE BOARD SHOULD DENY INSTITUTION OF THE PETITION

A. The Board Must Deny Institution Based on Grounds 3 and 5 Because Each Seeks Post Grant Review Only for Disclaimed Patent Claims

The Board cannot institute review of claims 3, 4, 10-15, and 17—the only claims challenged under Petitioner's Grounds 3 and 5—because Patent Owner has disclaimed them. On June 4, 2021, the Patent Owner filed a disclaimer with the PTO pursuant to 37 CFR 1.321(a). *See* Ex. 2004. In that disclaimer, the Patentee clearly disclaimed its interest in claims 3, 4, 10-15, and 17. *See id.*

This disclaimer prevents the Board from instituting post grant review of these claims. 37 CFR § 42.207 (“The patent owner may file a statutory disclaimer under 35 U.S.C. 253(a) in compliance with § 1.321(a), disclaiming one or more claims in the patent. No post-grant review will be instituted based on disclaimed claims.”) (emphasis added). Accordingly, the Board must deny institution of the petition based on grounds 3 and 5, as each seeks review only of disclaimed patent claims.

B. The Board Must Deny Institution Based on Grounds 1, 2, and 4 Because the *Yang* Reference Fails to Teach or Make Obvious Multiple Limitations of Each Challenged Claim

Each of Grounds 1, 2, and 4 rely on the *Yang* reference in an attempt to demonstrate the purported obviousness of claims of the '044 patent. *See* Pet. at 13. Because *Yang* does not disclose multiple elements of the claims of the '044 patent,

which are likewise not found in any of the cited secondary references, the Board should deny institution of Grounds 1, 2, and 4.⁷

1. Legal Standard

The *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966) and *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007) Supreme Court decisions set out the framework for the obviousness inquiry under 35 U.S.C. § 103:

Under § 103, the scope and content of the prior art to be determined; differences between the prior art and claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined. Such secondary considerations such as commercial success, long felt but unresolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

Id. “A determination of whether a patent claim is invalid as obvious under § 103 requires consideration of all four *Graham* factors, and it is error to reach a conclusion of obviousness until all of those factors are considered.” *Apple, Inc. v. Samsung Electronics Co., Ltd.*, 839 F.3d 1034, 1047 (Fed. Cir. 2016 en banc).

In conducting an obviousness analysis, it is important that the factfinder guard against hindsight bias. “It is improper to take concepts from other devices and change them in light of the now-known template of the patented device,

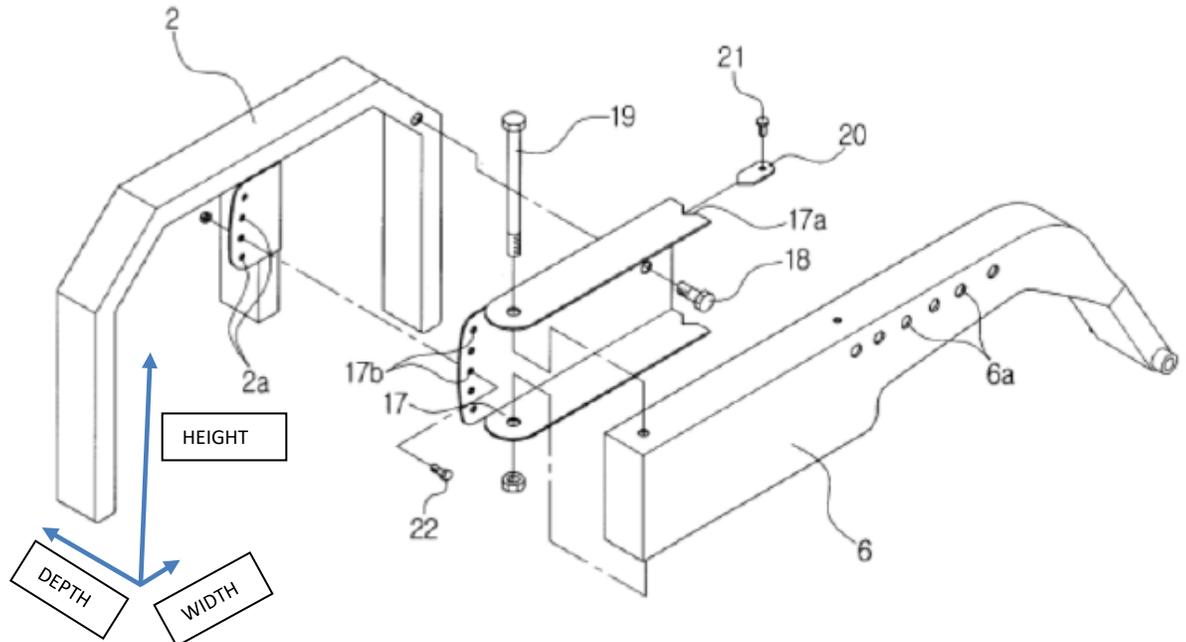
⁷ Patent Owner's focus on certain claim limitations in this Preliminary Response is not a concession that *Yang* or any other reference adequately discloses the claim limitations not expressly discussed herein.

without some direction in the prior art that would render it obvious to do so.” *Tokai Corp. v. Easton Enterprises*, 632 F.3d 1358, 1378 (Fed. Cir. 2011). The required consideration of objective indicia of non-obviousness, or “secondary considerations,” is a critical tool to “inoculate the obviousness analysis against hindsight.” *InTouch Techs., Inc. v. VGo Communs., Inc.*, 751 F.3d 1327, 1347 (Fed. Cir. 2014).

2. Yang Does Not Disclose or Render Obvious the “Mounting Plate” of Each Challenged Claim

Petitioner relies on *Yang* to disclose the “mounting plate” recited in claims 1, 2, 5, 6, 8, 9, 16 in each of Grounds 1, 2, and 4. *See* Pet. at 45, 72-76. Specifically, Petitioner argues that either or both of “frame (2)” and the area in which “adjustment holes (2a) on the frame” (Ex. 1008, claim 4) are found for disclosure of the “mounting plate” of each challenged claim. *See, e.g.*, Pet. at 45. Petitioner’s arguments are incorrect because a frame is not a plate, nor does it render the use of a plate obvious.

Frame (2) and “adjustment holes (2a) on the frame” are pictured below.



Ex. 1008 at 9 (Fig. 5) (annotated).

Frame (2) is, true to its name, a three-pronged frame wherein each prong is consistently narrow in width, tall in height, and with a depth significantly greater (e.g., depicted as much as 2-3 times as long) than the width of the prongs. “Holes (2a) on the frame” are the product of what appears to be a bracket that has been affixed to the frame (2) and which has four holes. *See id.*

Neither of these elements, individually or collectively, is a “mounting plate,” according to the plain and ordinary meaning of that term. As discussed in Section III.E, a “mounting plate” is a flat planar element with a thickness much smaller than its height and width dimensions and which is configured to be attached to a tractor or the like. Ex. 2003 ¶¶68-71. The frame (2) of *Yang* is not a planar

object—something that extends largely uniformly in the X and Y dimensions. *Id.*

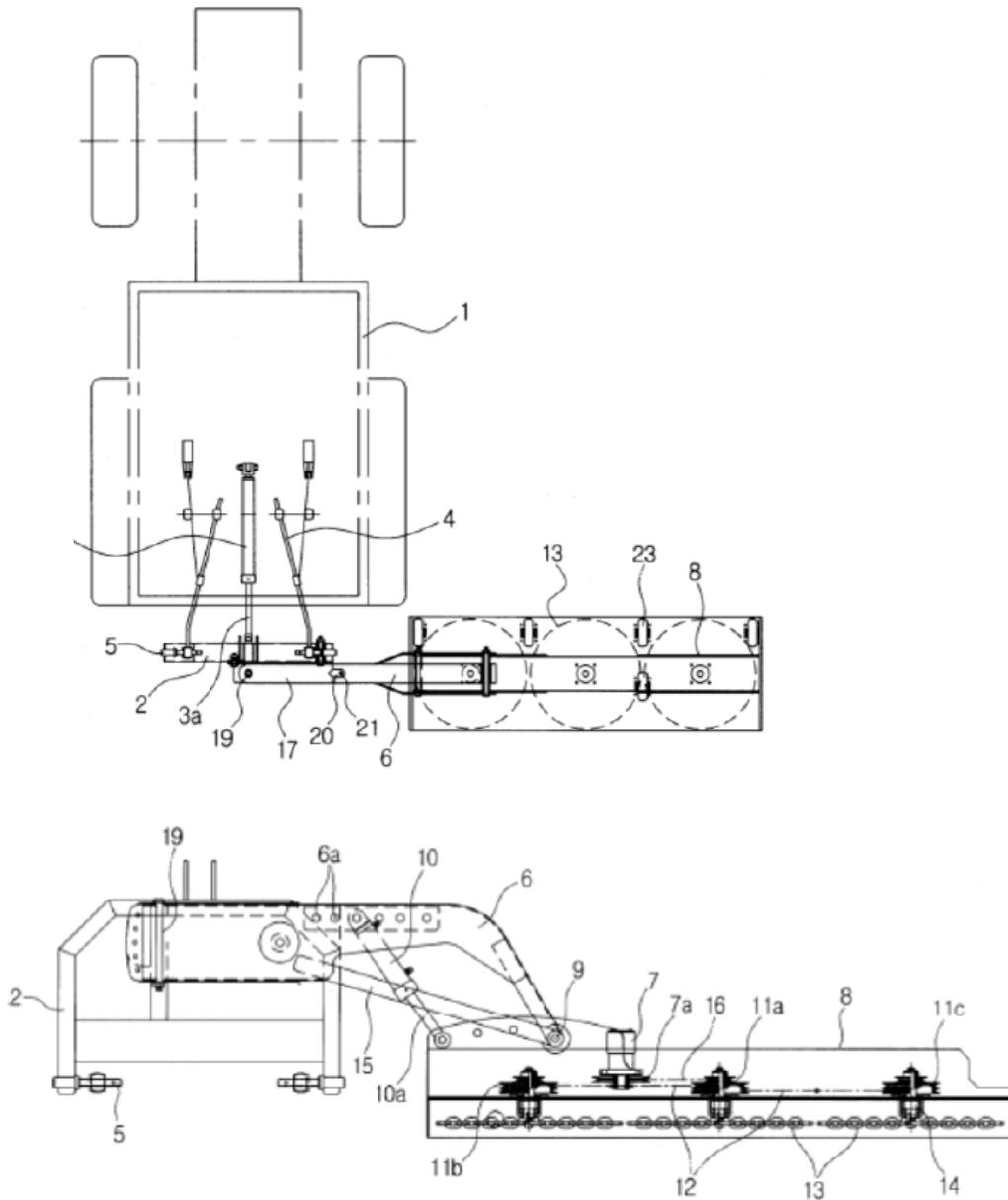
¶¶90-92. Instead, the Frame (2) is largely comprised of what appears to be angular tubing separated by large gaps between each tube. Moreover, Frame (2) does not have a thickness much smaller than its length and width. Indeed, the Frame (2) has a depth which *exceeds* its width twice over.

The bracket in which “adjustment holes (2a) on the frame” are found do not correct these deficiencies. For example, because this element is so small, it is not, itself, configured to be attached to a tractor or the like—it cannot reach the mounting pins (5) to mount to the tractor. *Yang* considers adjustment holes (2a) to be a part of the “frame.” Ex. 1008 at 2, Claim 4 (“adjustment holes (2a) on the frame”) (emphasis added); *id.* ¶28 (“A plurality of angle adjustment holes (2a) are formed on the frame (2)”). The fact that the bracket in which these holes are found is depicted as less thick than its length and breadth does not mean that the frame at large can be described as a plate. Were that so, a house would be a plate by virtue of its plate-glass windows.

The *Yang* reference itself evidences that a frame is distinct from a plate. Each time that *Yang* refers to a rectangular tube element, it calls the elements a “frame.” *See, e.g.*, Claim 1 (claiming Frame (2) and auxiliary frame (6)). Later, when referencing an element with a height and width much greater than its thickness, it uses the term “plate.” For example, the “moveable plate (8)” which

houses cutting member (13) is, consistent with the plain and ordinary meaning of *plate*, a largely planar object with a thickness much less than its height and width.

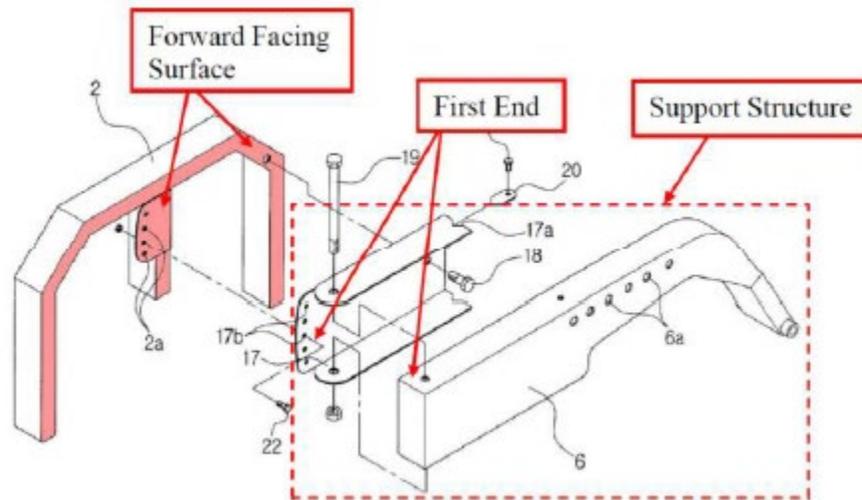
This may be seen in *Yang* Figures 1 and 2 below.



Accordingly, *Yang* does not disclose or suggest the use of the claimed mounting plate, which is a limitation of every challenged claim.

3. Yang Does Not Disclose or Render Obvious the “Forward-Facing Surface of the Mounting Plate” Limitation of Claims 2, 8, and 9

Petitioner argues that *Yang* discloses the “first end of the support structure is coupled to a forward-facing surface of the mounting plate” limitation of claims 2, 8, and 9. *See* Pet. at 60, 65-76. According to Petitioner, auxiliary frame (6) of *Yang* corresponds to the support structure of the '044 patent, and its alleged first end is coupled to the “forward-facing surface” of frame (2), which it annotates in red:



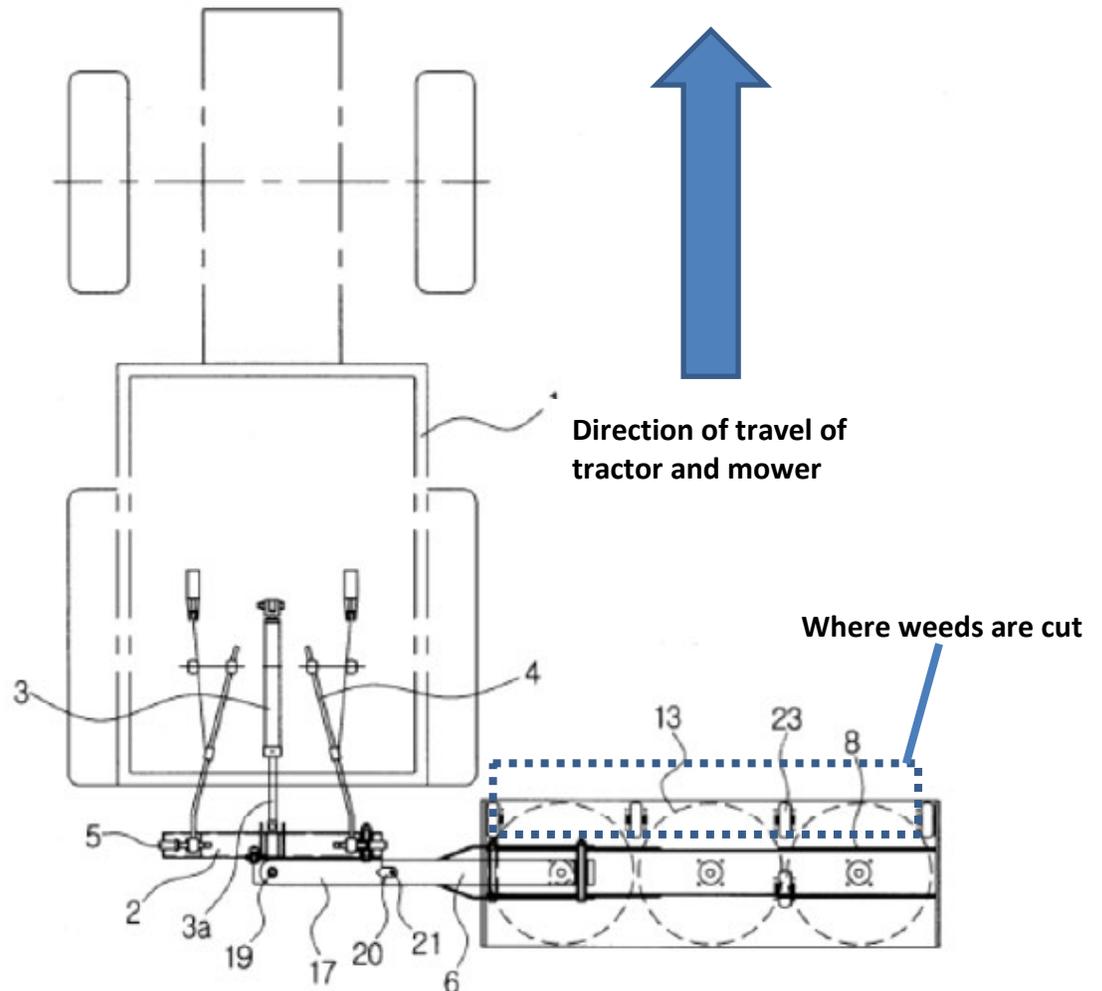
Pet. at 60. According to Petitioner, the red-annotated surface of frame (2) is the forward-facing surface of the mounting plate because it faces away from the tractor and the rear-facing surface of frame (2) has attachment means which attach to the

tractor, in similar manner to the preferred embodiment of the '044 patent. Pet. at 60.

As discussed *supra* at Section III.C, Petitioner's error is in the misconstruction of the claim term "forward-facing." According to Petitioner, the front and rear of the mounting plate are determined with reference to the location of tractor attachment mechanisms or the location of a tractor. *See* Pet. at 25-26. But these are not understood by POSITAs as characteristics defining the front or rear of a tractor attachment, and indeed are inconsistent at times with the understanding in the art of the front and rear of tractor attachments. *See generally* Ex. 2003 ¶¶50-64; Section III.C. As claimed, and as understood in the art, the forward and rear of the mounting plate are determined with reference to the orientation and direction of travel of the cutting apparatus. *Id.*

In *Yang*, the disclosed mower is mounted to the rear of the tractor and dragged forward, allowing weeds to feed into the blades and be cut on the side of the blade deck nearest the tractor. *See* Ex. 1008 ¶¶11-14; Ex. 2003 ¶113.

Fig. 1



Ex. 1008, Fig. 1 (annotated).

The *Yang* mower components are described with reference to the side of the mower used to cut vegetation. With respect to the preferred embodiment in the '044 patent, the frame (2) is described as having a "rear" side which, consistent with the understanding of a POSITA, points away from the direction of intended use of the mower:

A mower mounted on a tractor comprises: . . . an auxiliary frame (6) rigidly mounted on the rear end of the frame; a movable plate (8) of which one end is hingedly coupled with one end of the auxiliary frame and the other end is hingedly coupled with the rod (10a) of the second hydraulic cylinder (10) hingedly coupled with the auxiliary frame

Ex. 1008, claim 1 (emphases added); *see also id.* at Abstract (same), ¶11 (same).

Yang adopts this ordinary forward-and-rear understanding of the frame (2) for the reasons described at Section III.C *supra*—a POSITA understands the forward and rear sides of an object based on its physical orientation and ordinary manner of use. Ex. 2003 ¶¶55-62. The front of a mower or cutter will ordinarily be determined by which end accepts the vegetation to be cut. *Id.* ¶¶55-62.

Because the side of the frame (2) which is connected to auxiliary frame 6 points away from the direction of intended use of the disclosed mower, *Yang* labels it the rear side of the frame. *See* Ex. 2003 ¶126.

Consequently, Petitioner's argument that *Yang* discloses a support structure wherein a "first end of the support structure is coupled to a forward-facing surface of the mounting plate" of claims 2, 8, and 9 is wrong. *Yang* describes the identified face of frame (2) as the "rear" side of the frame at least because this side of the frame points away from the direction of intended use of the *Yang* mower. At best, the components identified by Petitioner as the "support structure" are mounted to the rear-facing surface of what it alleges is the "front-facing surface" of frame 2—the opposite of what the claims require.

Petitioner's proposed combination of references in Ground 2 do not cure this deficiency. Petitioner's Ground 2 is that the teachings of *Harris* motivate a POSITA to mount the *Yang* mower on the front of a tractor. *See* Pet. at 72-76. However, this proposed modification of *Yang* contradicts its teachings and would be illogical. First, there is no reason that a POSITA studying *Yang* would look to *Harris*. A POSITA would have no interest in mounting a drag-behind mower to the front of a tractor, because doing so would require the operator to always use the tractor in reverse. *See* Ex. 2003 ¶¶127-31. But, even accepting *arguendo* Petitioner's contentions, the proposed modification would not change the orientation of the frame (2) and moveable mowing plate (8) disclosed in *Yang*. The identified face of frame (2) continues to point away from the area into which the *Yang* teaches the operator would feed the weeds to be cut, and thus point away (i.e., be "rear-facing") from the front of the *Yang* mower.

Petitioner makes no explicit argument in the Petition that, once mounted to the front of a tractor, the operator would *reverse* the direction of use of the *Yang* mower—pushing the apparatus in front of the tractor instead of dragging it, as is taught in *Yang*. Even if such an argument was made, however, such an adjustment to the *Yang* mower obviates a primary purpose of *Yang*—i.e., enabling the mower to swing back and avoid damage when coming into contact with a stationary object:

even if the auxiliary frame or the movable plate runs into an obstacle like a utility pole when the tractor is running, damage to the same is prevented by allowing the auxiliary frame to rotate away from the frame.

Ex. 1008 ¶10. A POSITA would understand that this rotation is achieved only when dragging the *Yang* mower. Ex. 2003 ¶130. For at least this reason, *Yang* teaches against this proposed use of the *Yang* mower, and a POSITA would not be motivated to mount the *Yang* mower on the front of a tractor, nor operate the mower by pushing rather than dragging the unit. Ex. 2003 ¶127-31.

Thus, *Yang* does not disclose a support structure with a first end mounted to a forward-facing surface of a mounting plate, alone or in combination with *Harris*.

4. *Yang* Does Not Disclose or Render Obvious the Positioning Limitations of the Challenged Claims

Petitioner relies on *Yang* for disclosure of the positioning limitations of all challenged claims in Grounds 1, 2, and 4. *See, e.g.*, Pet. at 46-52, 57-59, 61-62, 67-69, 72-75, 89-91. In claim 1 and its dependent claims, the positioning limitations recite:

wherein the support structure and the support arm are configured to selectively enable positioning the cutting deck in a first position relative to the mounting plate, a second position relative to the mounting plate, and at least one other position relative to the mounting plate, the first position being angled substantially 90 degrees relative to the second position, and the at least one other position being different from the first and second position

wherein the cutting deck is manually adjustable from at least one of the first or second positions to the at least one other position, the first position correlating with a first receiving structure of a set of receiving structures being configured to receive a locking pin, wherein the set of receiving structures include a set of holes formed in the mounting plate

Ex. 1001 at Claim 1.

As explained in Section III.D *supra*, the positioning limitations, properly construed, call for the cutting deck to be positioned and configured to cut in each of the first position, second position, and at least one other position. These limitations require, *inter alia*, that the cutting deck be configured to work in combination with the support structure, support arm, and receiving structures to attain at least three unique *cutting positions* relative to the mounting plate. As explained below, *Yang* does not disclose these positioning limitations, as properly construed, and a POSITA would not be motivated to change what *Yang* discloses to achieve the inventions claimed in the '044 patent. Accordingly, each of Grounds 1, 2, and 4 fail.

a) ***Yang* Discloses a “Mower” to be Used to Cut Only in a Substantially Horizontally Position and Teaches Away from Using the Mower to Cut in a Vertical Position**

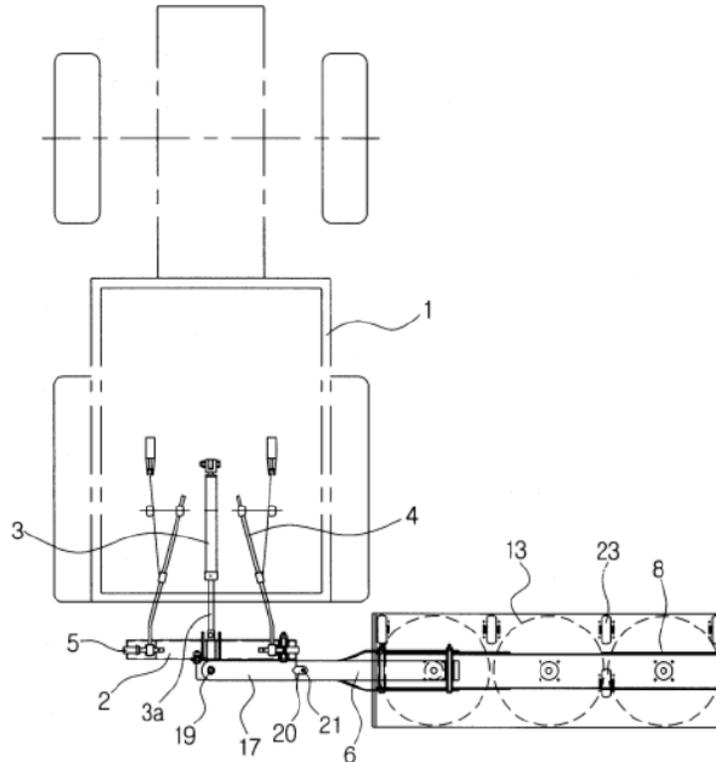
Petitioner contends that the mower in *Yang* may be positioned in the manner claimed in every claim of the '044 patent (i.e. horizontally and vertically and/or in positions 90 degrees relative to each other). However, the positioning limitations require the recited positions to be operable cutting positions, and *Yang* affirmatively

teaches against such use. The *Yang* reference “relates to a mower mounted on a tractor which automatically removes weeds growing on the edges of a road, and can automatically remove a large quantity of weeds growing on the edges of a road or a farm road while a tractor is running.” Ex. 1008 at Abstract. This use—extending the mower laterally from the tractor to cut road-side weeds—is the consistent and sole disclosed use of the mower device disclosed in *Yang*. See, e.g., Ex. 1008 ¶1 (“removes a large quantity of weeds growing on the edges of a road”); ¶6 (“the commercial grade mower can quickly and efficiently remove weeds”); ¶8 (“a commercial grade mower is installed in line with a machine and pulled around to cut and remove weeds”); ¶9 (“The present invention . . . can cut and remove weeds growing on the edges of a road”); ¶13 (“when cutting and removing weeds, the movable plate is unfolded down to the horizontal position so that it gets to automatically cut and remove the weeds grown on the edges of a road . . . the weeds growing on a wide area can be cut and removed quickly and safely with fewer workers.”); ¶41 (“once the weeds removing work is completed, the hydraulic pressure of the hydraulic motor (7) should be shut off to stop the rotation of the cutting member (13)”), see also ¶¶35, 38, 40; Ex. 2003 ¶¶103-05.

Because the mower disclosed in *Yang* is intended to be used *only* horizontally and to the side of the tractor to cut weeds growing along a roadside, the cutting deck is disclosed as having as many as five wheels (23) which, in operation, bear the

weight of the cutting deck as it moves through the weeds. Ex. 1008 ¶29 (“Reference numeral (23) . . . is a wheel installed one side [sic] of the movable plate (8).”); Ex. 2003 ¶106.

Fig. 1



Ex. 1008 Fig. 1.

A POSITA would understand that these wheels are necessary during operation because the entirety of the cutting apparatus, which may weigh on the order of 1,000 pounds (Ex. 2003 ¶123), is mounted to the frame (2) element via merely two bolts.⁸

⁸ Bolt 22 is portrayed as considerably smaller than bolt 18.

Fig. 5

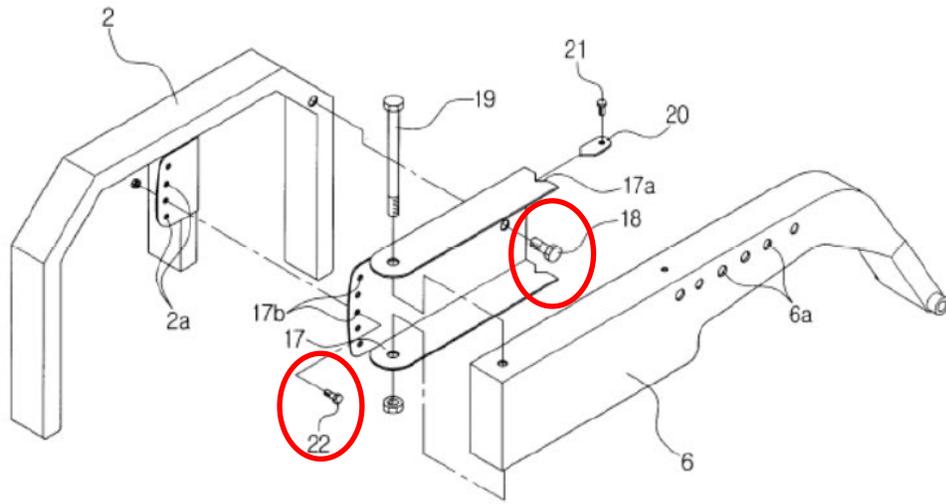
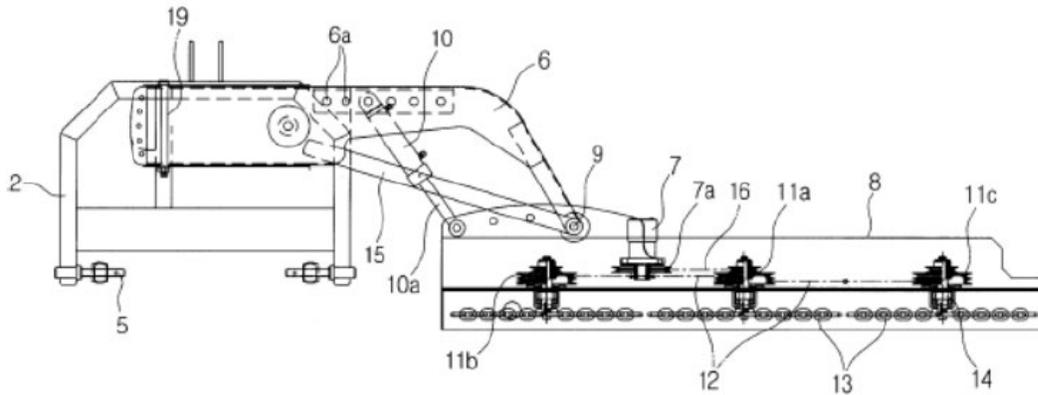


Fig. 2



These wheels, which would bear a significant portion of the weight of the cutting deck during use, thereby reducing the load, shear, and torsion stress imposed on bolts (18), (22), and connection bracket (17) during use of the *Yang* mower. Ex. 2003 ¶106. To protect the mower from damage, a POSITA would use the *Yang* mower in the manner taught—horizontally aside the tractor, with wheels in contact with the ground, to cut roadside weeds. *Id.*

In addition to teaching only one operable cutting position—horizontal to the side of the tractor—the *Yang* Reference affirmatively teaches away from using the mower in vertical orientations. *Yang* discloses that, for instance, hydraulic cylinder (10) and rod (10a) may be used to hydraulically adjust the angle of the movable plate (8) such that the plate “is maintained in a horizontal state or stands up in a vertical direction,” but adjustment of the plate in a vertical direction is never disclosed as being beneficial for cutting purposes. Instead, adjustment of the angle of the moveable plate from a horizontal cutting orientation is consistently taught to allow for the cutting apparatus to be more conveniently transported when it is not in use, then “unfolded” to the horizontal position to cut.

Ex. 1008 ¶9:

The present invention resolves the conventional problem and its objective is to develop a mower of a new shape which can be attached to the rear of a tractor in a folded state, moved around by the tractor and unfolded to the outside of the tractor when using it and can cut and remove weeds growing on the edges of a road or a farm road quickly in a very short time using the hydraulic pressure generated by the tractor while the tractor is running.

Id. ¶13:

while a tractor is running, the movable plate is folded upward so that the tractor can run in a safe state, and when cutting and removing weeds, the movable plate is unfolded down to the horizontal position so that it gets to automatically cut and remove the weeds grown on the edges of a road or a farm road using the power of the tractor while the tractor is running

Id. ¶15:

the cutting member is located on the part which almost touches the ground

Id. ¶¶35-36:

When the tractor has arrived at a road or a farm road from which weeds need to be cut and removed in this state, the movable plate (8) which has been in a standing position should be maintained in a horizontal position as shown in Fig. 3.

If the rod (10a), which has been pulled to the maximum, is pushed out by operating the second hydraulic cylinder (10), the movable plate (8) rotates clockwise around the pin (9) and it is maintained in a horizontal position.

Id. ¶¶37:

While maintaining the movable plate (8) in a horizontal position by an action described above, the bolts (22), which have been fastened to the angle adjustment holes (2a)(17b), are unfastened depending on the angle of the ground surface, the angle of the auxiliary frame (6) to which the movable plate (8) is installed, is adjusted appropriately to suit the tilt angle of the ground surface, and then, the bolts (22) are fastened to the matching angle adjustment holes (2a)(17b) again.

Id. ¶¶41:

Meanwhile, once the weeds removing work is completed, the hydraulic pressure of the hydraulic motor (7) should be shut off to stop the rotation of the cutting member (13) and the movable plate (8) **which has been maintained in a horizontal position** should be lifted again as shown in Fig. 2 so that no interference with an obstacle happens while the tractor (1) is running [i.e., “moving”].

The teachings of *Yang* are consistent: minor adjustments of the mower may be made to accommodate the “angle of the ground surface,” (Ex. 1008 ¶37), but such adjustment is so that the mower may be maintained and used “in the horizontal position” during cutting, using the disclosed wheels to bear the weight of the cutting deck as it travels across the surface of the ground. *See* Ex. 1008 ¶¶9, 13, 35, 36, 37, 41. The only disclosed purpose of non-horizontal orientations of the mower deck of *Yang* is for non-operation transport, such that the deck may avoid obstacles. *See id.* ¶¶9, 13, 32, 39, 41. *Yang* never teaches use of the moveable mower plate (8) in a vertical orientation to cut, for example, limbs or branches. Ex. 2003 ¶¶108-14.

b) The *Yang* Reference Does Not Teach, Suggest, or Motivate Cutting in a Vertical Orientation

Despite the fact that *Yang* consistently discloses that vertical orientation of the mower deck is for transport purposes only, Petitioner alleges that a POSITA would be motivated to orient and use the mower to cut in a vertical position for several reasons, none of which withstands scrutiny. First, Petitioner contends that *Yang* discloses vertical reorientation of the mower deck and it also discloses use of mowers to cut “vines,” which a POSITA would know are found “on the ground and in trees.” Pet. at 51-52. On this flimsy basis, Petitioner alleges a POSITA would know *Yang* can be used “both on and off the ground, such as in a vertical position” to cut vines found in trees. *Id.* at 52. Petitioner’s position is not grounded in evidence. *Yang*

uses the term “vine” twice, both times with reference to the operation of prior art mowers, not the preferred embodiment disclosed in *Yang* which is taught to be a novel product in the field. *See* Ex. 1008 ¶¶3-4. The specific teachings for the disclosed *Yang* mower do not suggest use of the mower to cut vines found in trees. For example, *Yang* discloses use of a mower in orchards, but exclusively to cut weeds found in the orchards, not vines in the trees of the orchard. *Id.* ¶¶5, 8. And *Yang* consistently teaches that the mower blades are to be used to cut only when the mower deck is lowered to the horizontal position supported by the wheels. *See supra.* A POSITA reading *Yang* would understand that the mower is to be used to cut “vines [] on the ground” (Pet. at 51), not those in trees. Indeed, using the *Yang* mower in such manner would be contrary to its express teachings.

Second, Petitioner alleges that a POSITA would know of the teachings of the *Christian* reference to conclude that *Yang* may be used like other “cutting devices” to clear “protruding limbs, brush, and other vegetation,” and for this reason would orient the mower deck vertically to cut such vegetation. Pet. at 52. But existence of other “cutting devices” built for other purposes does not suggest that the “mower” disclosed in *Yang* shares the capacities of those other “cutting devices,” nor would it motivate a POSITA to use the *Yang* mower in a manner contrary to *Yang*'s teachings. For example, *Yang* teaches that its cutting members (13) may preferably comprise a chain such that “even if the cutting member (13) hits stone or wood in

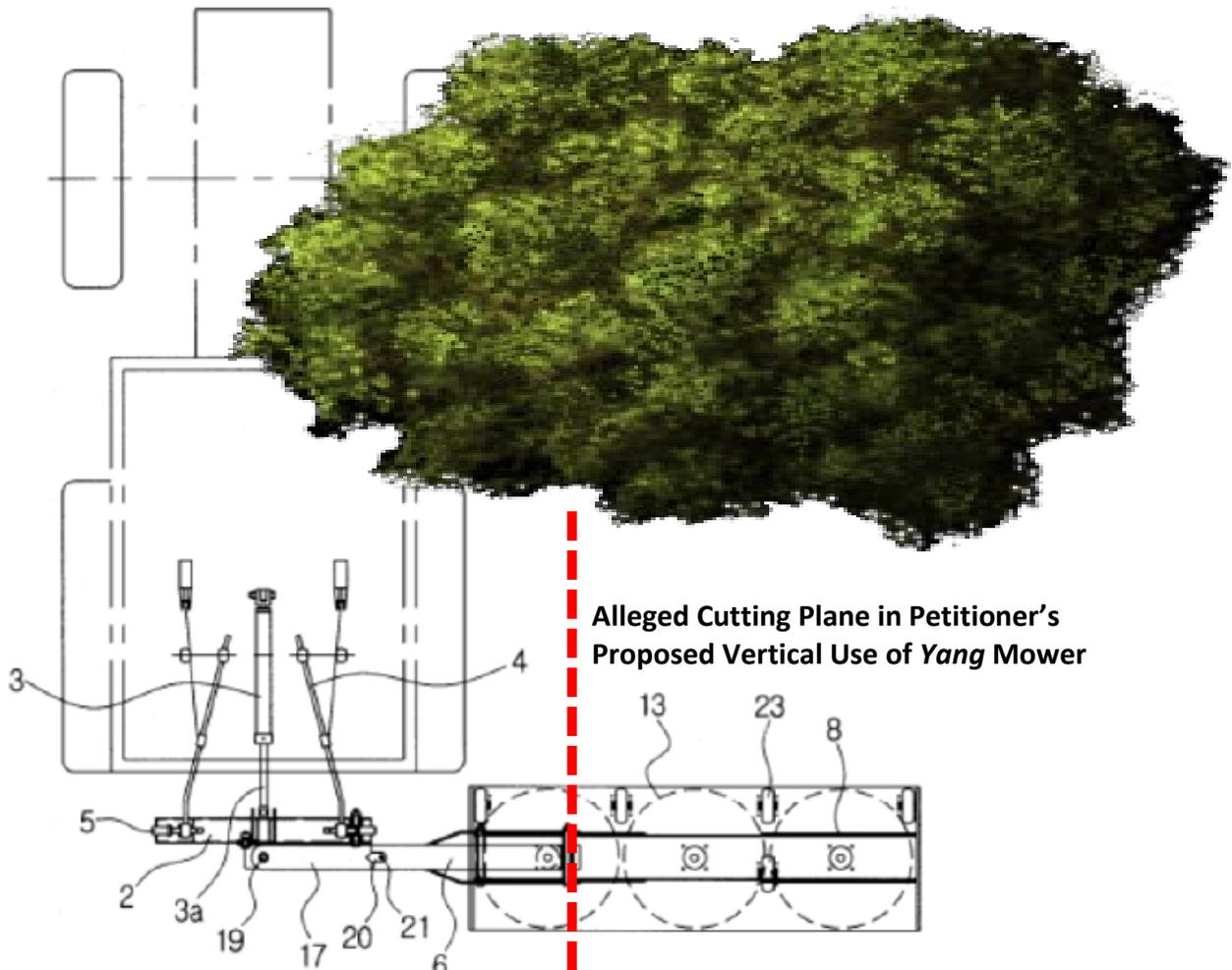
the course of removing weeds, the chain may be displaced but once it breaks free from the obstacle, it is straightened again by the centrifugal force and cuts and removes while rotating and thus, damage to the cutting members (13) is prevented and safety accidents caused by the damage to the cutting members can also be prevented.” Ex. 1008 ¶38 (emphases added). Clearly, the “mower” of *Yang* is for mowing weeds and the like, and is not designed to but wood tree branches. Ex. 2003 ¶¶115-20. When the mower accidentally or unavoidably encounters wood while traveling across the ground cutting weeds, the disclosed mower is designed to have cutting members which “displace,” meaning that the blades are moved from the centrifugal plane in which they were spinning to avoid damage and do not cut the wood. Ex. 2003 ¶¶112-14. Alternative cutting member blades depicted at figure 6 of *Yang* are clearly for mulching grass and weeds, and would be known to a POSITA to be ill-suited to cutting wood or branches. *Id.* ¶116. These blades are different from the blades attached to a blade carrier depicted in Figure 7 of the '044 patent, which a POSITA would know are designed to cut wood or, where the wood is too thick to be cut in a single pass, repeatedly chop the wood as the blades repeatedly contact the wood on subsequent revolutions of the blade carrier. *Id.*

The *Yang* reference teaches other design failsafes if the mower incidentally contacts wood while cutting weeds. For example, “if . . . the movable plate (8) runs into an obstacle such as . . . wood when the tractor (1) is removing weeds while

moving . . . the auxiliary frame (6) on which the movable plate (8) is installed rotates clockwise around the shaft (19) shown on Fig. 1. . .". Ex. 1008 ¶39 (emphasis added). Thus, *Yang* teaches that the disclosed mower is designed specifically to deflect or rotate away from contact with wood (i.e., branches or limbs). See Ex. 2003 ¶¶112-14. A POSITA would therefore understand that the mower of *Yang* is materially distinct from the "cutters" discussed in *Christian*, and would not be motivated to use the *Yang* mower to cut in a vertical orientation where one would encounter tree branches and limbs. Ex. 2003 ¶¶116-20.

Finally, Petitioner alleges that there are "other reasons why one might need to adjust the mower to a vertical position, other than cutting at that position," and that these include avoiding obstacles during transport. Pet. at 52. But that is precisely the reason that *Yang* does not teach the positioning limitations. The sole disclosed purpose of vertical orientations of the *Yang* mower, and the only purpose for which a POSITA would adjust the mower deck vertically, is for transport, not cutting.

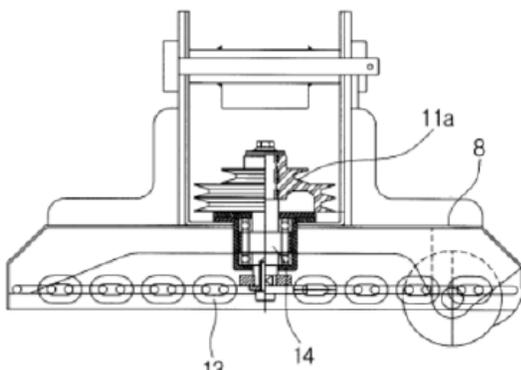
Petitioner ignores other reasons a POSITA would know not use the *Yang* mower to cut vertically. For example, because the *Yang* mower is designed to be attached at the rear of the tractor and dragged behind it, vertical cutting would result in tree limbs crashing into the cab of the tractor or, if there is no protective cab, the face and body of the tractor operator, before reaching the mower deck. This is depicted below.



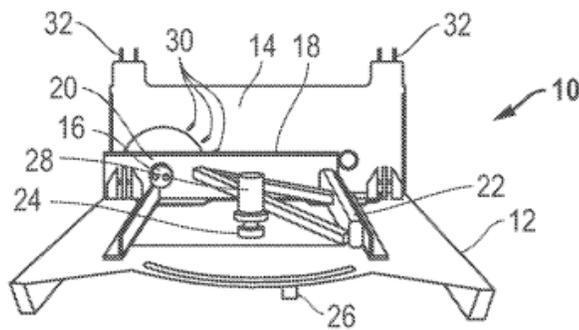
Ex. 1008, Fig. 1 (modified); Ex. 2003 ¶117. Even assuming a POSITA were to tolerate the hazards of raking tree branches on a tractor cab and/or its operator to use the mower in a vertical orientation, the POSITA would have to dramatically fortify the cutting members (13) and the support structure of the mower to actually cut wood and find a way to disable the break-away function of the notch groove (17a) and stopper (20) that allow rotation of the mower deck away from the branches into which the mower deck is being driven. Such rotation, if not prevented, would result

in the mower deck rotating in the air behind the tractor, exposing persons, equipment, or other property behind or on the other side of the tractor to the fast-spinning cutting members of the cutting deck. Ex. 2003 ¶113. A POSITA would not tolerate this hazard. *Id.*

Additionally, as would be apparent to a POSITA, every side of the mower deck of the *Yang* mower has a skirt which, in normal operation, allows for mulching of vegetation and which prevents weeds, dirt, and anything else which comes into contact with the cutting members (13) from being rapidly ejected after being cut. *See, e.g.* Ex. 2003 ¶40 (discussing purpose of deck skirting). This is distinct from the brush cutter disclosed in the '044 patent, which has no skirting on the side of the cutting deck into which vegetation is fed. *See, e.g.,* Ex, 1001 at Figs. 1-8, 13, 15; Ex. 1008 at Fig. 4.



Yang Fig. 4



'044 Patent Fig. 1

This distinction makes the '044 embodiment well suited to vertical cutting of branches, and *Yang* ill-suited to such tasks. Any branches which travel across the operator and/or cab of the tractor and meet the cutting deck of *Yang*, in Petitioner's hypothetical vertical cutting orientation, must bend in order to travel around the front skirt of the mower plate (8) and wheels (23) to reach the cutting members (13). Unlike the disclosed "push plate" of the '044 patent, which is taught to "act[] as a guard for the exposed blades 26 when the blades 26 extend past the front of cutting deck 12 and as a guide to compress material for more consistent cutting prior to contact with the cutting blades," (Ex. 1001 7:13-16) (emphasis added), the uniform skirt of *Yang* would cause many branches to bend away from the cutting members of the mower plate, thereby avoiding being cut altogether. Ex. 2003 ¶119. For this additional reason, a POSITA would know that *Yang* is not to be used for vertical cutting and, therefore, does not teach or suggest the position limitations of the claims.

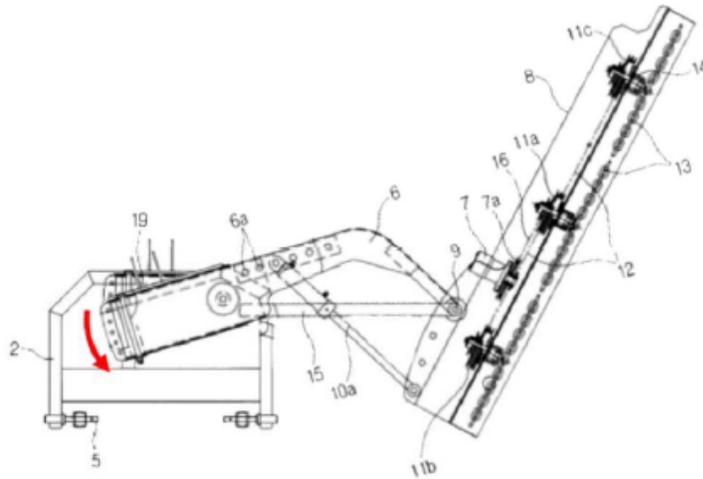
In view of the foregoing (i.e., Sections IV.B.4), Petitioner's argument that *Yang* discloses, teaches, suggests, or motivates use of *Yang* in vertical cutting positions has no evidentiary grounding in the prior art. Specifically, the evidence does not support Petitioner's conclusory assertion that *Yang* discloses vertical cutting positions to satisfy claim 1's requirement that the first and second cutting positions are "angled substantially 90 degrees relative" to one another. *See* Pet. at

46-52; 57-59. The prior art also does not support Petitioner's contentions with respect to the "the second position the cutting deck is vertical" limitation of claim 2. *Id.* at 61-62. Accordingly, Petitioner has failed to show that it is more likely than not that at least one of the claims challenged in the petition is unpatentable in view of *Yang*, alone or in combination with *Harris* or *Higdon* (i.e., Grounds 1, 2, and 4). The Board must deny institution on Grounds 1, 2, and 4.

5. *Yang* Does Not Disclose or Render Obvious the "Manually Adjustable" Limitations of the Challenged Claims

Petitioner relies on *Yang* in grounds 1, 2, and 4 to disclose "a cutting deck, wherein *the cutting deck is manually adjustable* from at least one of the first or second positions to the at least one other position." *See* Pet. at 46-52. Because this is a limitation of every claim challenged in Grounds 1, 2, and 4, and because the mower deck of *Yang* is not manually adjustable, each Ground fails.

Petitioner offers a modified version of *Yang* Figure 3 (shown below) and posits "*Yang* 'is manually adjustable from at least one of the first or second positions to the at least one other position,' as claimed, by removing the bolt (22) (claimed "locking pin"), tilting the auxiliary frame (6) so that it rotates around bolt (18), and then reaffixing bolt (22) through a different set of angle adjustment holes (2a)(17b) correlating to another position." *Id.*



***Modified* FIG. 3 (showing example of claimed “at least one other position” between horizontal and vertical after manually rotating auxiliary arm 6)**

This argument fails because a POSITA understands that a tractor operator cannot manually achieve this configuration, or any other reconfiguration of *Yang*, in the manner argued by Petitioner. As explained by expert witness Fred Smith, bolt (22) is under a significant load when the weight of *Yang*'s mower deck is not fully borne by resting the deck on its wheels (23) on the ground, and such a load prevents bolt (22) from being removed by hand. *See* Ex. 2003 ¶108. If the weight of the *Yang* mower is borne by resting the deck on its wheels on the ground or some lifting device, the bolt (22) may be removed, but a POSITA would understand that the tractor operator would not be able to manually adjust the angle of the mower deck as depicted by Petitioner. This would require the tractor operator to simultaneously, and by hand, rotate the half-ton cutting apparatus about bolt (18) and align holes (2a) and (17b), then maintain this precise orientation

while reinserting bolt (22). *See id.*; *see also id.* ¶119. Assuming a tractor operator could even lift this weight, they would have to lift far from the point of rotation (bolt (18)) to generate enough leverage, and doing so puts the operator out of reach of holes (2a) and (17b) to replace bolt (22) when the mower deck is in the new orientation. Ex. 2003 ¶108. In short, this is an impossible task, which is why such an adjustment is nowhere taught in *Yang*. Petitioner glosses over the reality of its argument by stating in vague terms and in a passive voice that “bolt (22) is unfastened, the angle adjusted (while bolt (18) remains fastened), and then bolt (22) is refastened at a selected angle...” Pet. at 28-29. Petitioner does not explain how this could be done *manually*—i.e., by hand.

To achieve the adjustment argued by Petitioner above, the tractor operator would, after placing the mower deck on a jack or some other adjustable lifting device, remove bolt (22), adjust the angle of the mower deck by raising or lowering the jack, thereby realigning holes (2a) and (17b), then reinsert bolt (22). Ex. 2003 ¶108. Use of the tractor's hydraulics in this manner to achieve this new orientation of *Yang*'s mower deck is not “manual” adjustment of the position of the cutting deck. Ex. 2003 ¶¶121-24; *see also* Ex. 1001 at 4:60-5:2 (distinguishing between “user-assisted processes” and performing the same processes “manually”).

Petitioner also argues that *Yang*'s mower deck may achieve near-vertical orientations if one were to reposition both bolt (22) and the “the position of the

hydraulic cylinder (10) along the locking holes (6a).” Pet. at 30; *see also id.* at 50-51. This argument also fails. To reposition cylinder (10), the operator would need to remove a bolt from its present locking hole (6a), then lengthen or shorten arm (10a) so that the cylinder will align with a second hole (6a). Again, the weight of the cutting deck must be borne to remove the load on the bolt in hole (6a), and a tractor operator would use the tractor’s hydraulic system to lengthen or shorten the cylinder,⁹ which is machine adjustment, not manual adjustment. Ex. 2003 ¶¶121-24. Alternatively, one could change the angle of the mower deck to allow the cylinder (10) to align with a second hole (6a), but the tractor operator would not want to (or be able to) bear the weight of lifting the cutting deck, keep it in precise position, then simultaneously reinsert the bolt into a second hole (6a) while the deck is held aloft.¹⁰ Instead, the operator would use the tractor’s hydraulic arms to achieve a new alignment of holes (6a) and cylinder (10). Ex. 2003 ¶122.

Because Petitioner has failed to show that *Yang* discloses manual adjustment of *Yang*’s mower deck, and because a POSITA would understand *Yang* to disclose

⁹ A tractor operator cannot lengthen or shorten a hydraulic cylinder by hand when connected to a hydraulic system. Ex. 2003 ¶122. A tractor operator seeks to avoid disconnecting hydraulic components as much as possible due to time, mess, and the threat of contaminating hydraulic lines with air or dirt. *Id.*

¹⁰ Such an operation, if even possible, seemingly requires three hands—one to hold the mower deck aloft, another to position the cylinder (10), and a third to set the bolt into position.

only hydraulic positioning, Grounds 1, 2, and 4 fail for want of a teaching of manual adjustment, a limitation of every challenged claim.

6. Yang Does Not Overcome the Strong Showing of Secondary Considerations of Non-Obviousness in this Dispute

Even if *Yang* established a prima facie case of obviousness (which it does not as explained above), there is overwhelming objective evidence of the non-obviousness of the inventions claimed in the '044 patent that compels a conclusion of non-obviousness despite the weak invalidity case posed in Grounds 1, 2, and 4. Patent Owner hereby incorporates the evidence and argument discussed in Section IV.D.6 *infra*.

C. The Board Must Deny Institution Based On Ground 6 Because the '044 Patent Does Not Lack Written Description Support

1. Legal Standard

A patent's written description is sufficient where "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 Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*). This test requires "an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Id.* This includes all information that is expressly "incorporated by reference" into the earlier application. *Paice*, 881 F.3d at 907 (finding the Board erred in not analyzing a prior patent incorporated by

reference into an application to determine whether the application “supplies the requisite written description support” for the claims). Petitioner bears the burden of proving lack of written description by a preponderance of the evidence. *See Rambus Inc. v. Rea*, 731 F.3d 1248, 1255 (Fed. Cir. 2013).

In determining the sufficiency of the disclosure, it is appropriate to take account of “the existing knowledge in the particular field, the extent and content of the prior art, the maturity of the science or technology, [and] the predictability of the aspect at issue.” *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.” *Id.* (quoting *Capon v. Eshhar*, 418 F.3d 1349, 1357-58 (Fed. Cir. 2005)). When the invention stems from a predictable field, “a lower level of detail is required to satisfy the written description requirement than for unpredictable arts.” *Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1361 (Fed. Cir. 2018).

Although “a description that merely renders the invention obvious does not satisfy the requirement,” “the written description requirement does not demand either examples or an actual reduction to practice; a constructive reduction to practice that in a definite way identifies the claimed invention can satisfy the written description requirement.” *Ariad*, 598 F.3d at 1352. It also “does not

require that every claimed element be illustrated in the figures, particularly in predictable arts and where the element not depicted is conventional and not 'necessary for the understanding of the subject matter sought to be patented.'"

Hologic, 884 F.3d at 1362; *see also LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005) ("A claim will not be invalidated on section 112 grounds simply because the embodiments of the specification do not contain examples explicitly covering the full scope of the claim language."). "That is because the patent specification is written for a person of skill in the art, and such a person comes to the patent with the knowledge of what has come before." *Id.* Consequently, "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 and to enable such a person to make and use the invention without undue experimentation." *Id.*

2. The Claimed "Set of Receiving Structures" is Supported by Extensive Written Description Support

Petitioner alleges that claim 1 and its dependent claims are each invalid under Section 112(a) for failure to include an adequate written description for the claimed "set of receiving structures" in claim 1. *See* Pet. at 116-20. In relevant part, claim 1 recites:

wherein the cutting deck is manually adjustable from at least one of the first or second positions to the at least one other position, the first

position correlating with a first receiving structure of a set of receiving structures, each receiving structure of the set of receiving structures being configured to receive a locking pin, wherein **the set of receiving structures include a set of holes formed in the mounting plate.**

Ex. 1001 at 12 (emphases added).

Petitioner acknowledges that the '044 patent contains explicit teachings about holes formed in the cutting apparatus' mounting plate, and that these holes are made "for use in combination with a locking pin . . . to lock the cutting deck 12 at a selected position." Pet. at 117 (citing Ex. 1001, 5:36-39). Petitioner concedes that these "rotation adjustment holes 30" from the patent specification are depicted at Figures 9 and 10 of the patent. *See id.*

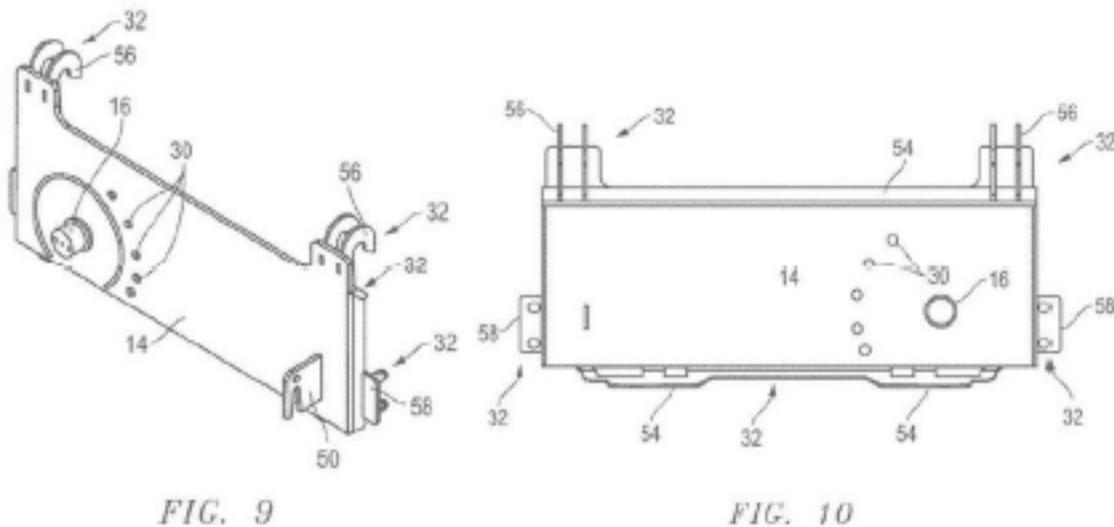


Figure 3 shows that a similarly sized hole in the "main adjustable arm 18" travels along the arc of the rotation adjustment holes 30, allowing for the main adjustable arm to be "use[d] in combination with a locking pin . . . to lock the cutting deck at a desired position." Ex. 1001 at 11 (5:36-39).

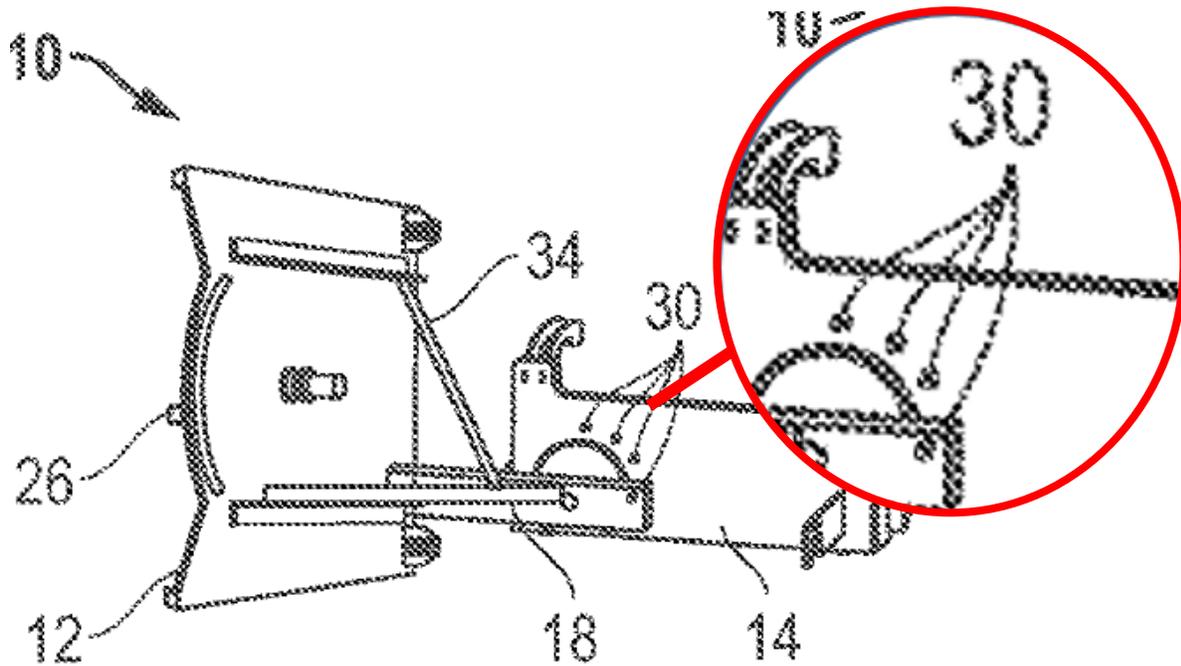


FIG. 3

Ex. 1001 at 3 (annotated to show detail).

Thus, a POSITA would reasonably conclude that the '044 patent discloses and teaches the utility of holes in the mounting plate which may receive a locking pin to lock the cutting deck in one or more useful cutting positions. *See* Ex. 2003 ¶76. The '044 patent also discloses a hole in the main adjustable arm of the cutting apparatus that aligns with and which travels along the path of the disclosed holes in the mounting plate, and which may receive the disclosed locking pin to lock the cutting deck at any of several available cutting positions. *See id.* These disclosures unambiguously demonstrate that the Patent Owner was in possession of

the “set of receiving structures” of claim 1 “configured to receive a locking pin, wherein the set of receiving structures include a set of holes formed in the mounting plate” at the time of its patent application. *See id.* at ¶¶76, 79-81.

Despite the foregoing concessions by Petitioner and substantive disclosures in the patent specification, Petitioner argues that the “set of receiving structures” is invalid under Section 112(a) based on what appears to be an unarticulated claim construction position, a position which is seemingly based on principles of claim differentiation:

[H]oles 30 are the only “set of holes” that the specification discloses “formed in the mounting plate,” and the specification does not disclose or suggest any “receiving structures” including these holes. . . . The specification is completely silent regarding the set of holes 30 in the mounting plate 14 being structurally distinct from a separate “set of receiving structures” as independent claim 1 requires. Ex-1005, ¶207.

A POSITA would have understood that claim 12 recites “receiving structures,” but does not suffer the written-description deficiency of claim 1. The first, second, and third receiving structures in claim 12 correspond to respective holes 30 in the mounting plate. Ex-1005, ¶209. But unlike independent claim 1, claim 12 does not further require these claimed receiving structures to be distinct structures from a separately recited set of holes formed in the mounting plate, which, as discussed, is not supported in the specification. Ex-1005, ¶209.

Pet. at 118-20 (emphasis added).

Petitioner's arguments fail on several bases. First, Petitioner seeks to impose an implicit claim construction on the Board and on the '044 patent:

Petitioner contends a “set of receiving structures” that “include[s] a set of holes formed in the mounting plate” requires that the holes in the mounting plate be “structurally distinct from a separate ‘set of receiving structures.’” *See* Pet. at 118-19. The language of claim 1, however, recites no requirement that the holes in the mounting plate be structurally distinct from the set of receiving structures, nor that the set of receiving structures be separate from the holes in the mounting plate. *See* Ex. 1001 at 12. Claim 1, interpreted according to its plain language,¹¹ simply requires that the recited set of receiving structures have a first structure corresponding to a first position of the cutting deck, each of the receiving structures be configured to receive a locking pin, and that the set of receiving structures minimally “include a set of holes formed in the mounting plate.” Ex. 1001 at 12; *see* Ex. 2003 ¶76. Figure 3, for example, discloses just such a structure to the POSITA—a pin inserted through the hole in main adjustable arm 18 and into any of the rotation adjustment holes 30 would operate to lock the main adjustable arm and cutting deck in a cutting position of the user’s choosing, and this disclosure plainly includes holes formed in mounting plate 14. *Id.*; *see* Ex. 1001 (5:36-39). Petitioner’s implicit claim construction is without basis and should be rejected.

¹¹ Petitioner does not advocate for a non-plain-language interpretation of the “set of receiving structures” language.

Second, and relatedly, it seems as though Petitioner errs in its implicit claim construction based on its insistence that the patentee explicitly describe each limitation in the claims in identical terms in the patent specification. For example, Petitioner faults the Patent Owner for including “no express definition of the claimed ‘set of receiving structures’” in the patent specification. Pet at 117. Later, the Petitioner reasons that the patent specification’s disclosure of “rotation adjustment holes 30” constitutes “the only disclosed structure that could correspond to the claimed ‘set of receiving structures,’” and, as a result the “specification is completely silent regarding the set of holes 30 in the mounting plate 14 being structurally distinct from a separate ‘set of receiving structures’ as independent claim 1 requires.” Pet. at 118-19. This argument fails because it imposes an *in haec verba*¹² requirement on the patent specification—a burden contrary to the patent law. *See Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000); MPEP 2163.02, June 2020 (“The subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement.”). Instead, all that is required to satisfy the Section 112(a) written description requirement is a

¹² *See* MPEP 2163.02, June 2020 (“The subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement.”)

sufficient disclosure to a POSITA, who brings to bear the knowledge that such an artisan would possess, to conclude that the patentee was in possession of the claimed subject matter. *Ariad*, 598 F.3d at 1351. This showing does not require disclosure of what is known in the art, disclosure of examples, or even actual reduction to practice. *Id.* at 1352. Nevertheless, the '044 patent provides each of these disclosures. The provisional patent application discloses pictures of the Lane Shark LS2 brush cutter product. *See* Ex. 1003 at 11, 19-28. This product, like the brush cutter depicted in Figure 3 of the '044 patent, depicts a hole at the end of the main adjustable arm which travels along the arc of holes formed in the mounting plate. *See id.* When a pin is inserted through the main adjustable arm and any of the holes in the mounting plate (i.e., when these holes “receive” the locking pin), the arm and deck lock into a usable cutting position. *See* Ex. 2003 ¶79.

In addition, the '044 patent depicts a set of tower locks (52) that mate with brackets (44, 50) via aligning holes to enable the cutting deck to rotate into different positions. Ex. 1001 at Figs. 8-9, 12-13; 6:23-31. Figure 8 of the '044 patent shows (but does not call out) a pin running between the holes in the tower locks. *Id.* The holes in the tower locks and brackets are also a set of receiving structures for use with a locking pin. So, even where Petitioner's implicit claim construction is adopted, there should be no doubt that the Patent Owner was in

possession of a “set of receiving structures” that goes beyond the “holes formed in the mounting plate.”

Third, Petitioner's argument that the disclosure of “rotation adjustment holes 30” can only disclose the “set of receiving structures” of claim 1 and not the “holes formed in the mounting plate” limitation is based in neither law nor reality. There is no law or precedent standing for the proposition that a disclosure describing one claim limitation cannot inform a POSITA's understanding of related claim terms. More practically, there is no reason that a POSITA, reading the disclosure in the patent specification regarding a locking pin operating in combination with “rotation adjustment holes 30” would conclude that the Patent Owner did not possess “a set of receiving structures . . . includ[ing] a set of holes formed in the mounting plate”—an actual, real-world example of this structure is depicted and described in the specification. Petitioner provides no credible reason why a POSITA would not understand “rotation adjustment holes 30” formed in a mounting plate, as described and depicted in the specification, to correspond to the “holes formed in the mounting plate” limitation of claim 1.

Fourth, Petitioner complains that “the claimed ‘set of receiving structures [that] include a set of holes formed in the mounting plate’ in claim 1 is invalid under Section 112(a) because this “generic” claim term could include larger receiving structures built on or around the holes 30 that were never described (or

enabled)¹³ in the '044 patent.” Pet. at 120. This is not a written description argument, it is an enablement argument, one which seemingly concedes that the patent specification discloses the disputed limitation, but argues that other structures that might read on the claim language are not disclosed or enabled in the specification. But Petitioner has not sought institution on enablement grounds, so this argument should be rejected.

Even where Petitioner had sought institution on enablement grounds, its conception of the law is flawed. A claim may be enabled for a broad array of infringing designs even where only a single example is provided in the patent specification. *See, e.g., Spectra-Physics, Inc. v. Coherent, Inc.*, 946 F.2d 1528, 1530, 1533 (Fed. Cir. 1991) (“If an invention pertains to an art where the results are predictable, *e.g.*, mechanical as opposed to chemical arts, a broad claim can be enabled by disclosure of a single embodiment, and is not invalid for lack of enablement simply because it reads on another embodiment of the invention which is inadequately disclosed.”). Petitioner contends the “set of receiving structures” is invalid because it may impermissibly “include larger receiving structures built on or around the holes 30 that were never described (or enabled) in the '044 patent.”

¹³ Petitioner does not allege a lack of enablement as a formal ground for institution. Accordingly, Patent Owner only briefly responds to this incorrect and unsupported dictum.

Pet. at 120. But the enablement analysis does not rise or fall on whether an embodiment is explicitly described in a patent, it is determined based on the imposition of an undue burden on a POSITA. Petitioner provides no argument or evidence that creating “larger receiving structures” would impose an undue burden on a POSITA, and such an argument does not withstand scrutiny—a POSITA is well equipped to, for example, form larger holes or bracketing to operate with a pin and/or the disclosed holes in the mounting plate. Ex. 2003 ¶78.

For all of the foregoing reasons, Petitioner's Section 112(a) arguments are incorrect and without factual or legal basis, and should be rejected. The Board must deny institution of the Petition based on Ground 6.

D. The Board Should Exercise Its Discretion To Deny The Petition

Even if Petitioner had demonstrated a prima facie case of invalidity under any of its asserted Grounds (which the foregoing analysis refutes), the Board should still exercise its discretion to deny the Petition. Petitioner correctly identifies the six non-exclusive factors the Board ordinarily considers when a petition is filed during parallel district court litigation. However, Petitioner fails to forthrightly apply all of the factors. Because every factor favors denial of the Petition, the Board should deny the Petition.

1. The Trial Court Denied Petitioner's Motion to Stay, and Has Shown it is Disinclined to Stay the Proceedings

The first factor is whether the trial court has stayed or is likely to stay the litigation following institution. Petitioner argues that this factor weighs against a discretionary denial because it “is likely the district court will stay the case.” Pet. at 122. Petitioner's speculation has been proven wrong. The Court denied Petitioner's motion to stay. *See* Ex. 2005. Petitioner's arguments on this factor are therefore without merit.

The Board also properly considers whether a court “has not indicated to the parties that it will consider a renewed motion or reconsider a motion to stay if a PTAB trial is instituted . . .”. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 7-8 (PTAB Mar. 20, 2020) (precedential) (hereinafter, “*Fintiv*”). A trial court's silence on a renewed motion to stay, its skepticism of the utility of such a motion, or its denial of a motion to stay with prejudice properly weighs against institution of a petition. *See id.* Here, the district court indicated that the benefits of a stay at any juncture of the PGR proceedings are slight because there are two patents asserted in the parallel litigation, so “even if the PTAB does institute PGR, there is a counterclaim for a declaratory judgment of invalidity before this Court on both [asserted] patents . . . but the PGR proceeding only concerns one [of the patents asserted in the lawsuit]. . .”. Ex. 2005 at 6. According to the Court, “even if the

PTAB were to invalidate all the claims of the '044 patent, it would not eliminate the issues for trial, as the '364 patent will remain intact. . . . [and the Court will still have to undertake substantial effort relating to discovery for and litigation of the '364 patent.” *Id.* at 6-7. In view of these considerations, the district court denied Petitioner's motion to stay without indicating any willingness to reconsider after the Board's institution decision. *Id.* at 7. Accordingly, this factor weighs against institution.

2. The Trial Date Precedes the Board's Statutory Deadline for a Final Written Decision

The second discretionary factor concerns the timing of the disposition of a PGR or trial. A ten-day trial is presently scheduled to begin on August 16, 2022. *See* Ex. 2006 at 9. The district court has ordered that “**THIS TRIAL DATE WILL NOT BE RESCHEDULED EXCEPT UNDER EXTRAORDINARY CIRCUMSTANCES.**” *Id.* (all emphases in original). The Board's institution decision should issue by September 25, 2021.¹⁴ If PGR is instituted, the Board's deadline to issue a final written decision, in the ordinary course, is September 25, 2022, but the decision may issue as late as March 25, 2023. *See* 35 U.S.C.

¹⁴ The Board is obligated to issue its institution decision within three months of receipt of this preliminary response. 35 U.S.C. §324. Because this preliminary response is filed on June 25, the Board's institution decision is due on September 25.

§ 326(a)(11). Thus, the trial date precedes the Board's statutory institution decision deadline by more than one to seven months.

“If the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution . . .”. *Fintiv* at 9. Petitioner is therefore wrong in asserting that this factor is neutral because “the final written decision may issue around the same time the trial would conclude.” Pet. at 123. This factor favors a discretionary denial of the Petition.

3. The Court and Litigants Have Invested Significant Resources in the Co-Pending Litigation

Petitioner argues that “[t]he '044 patent only recently issued on February 2, 2021,” and, as a result, “[t]he parties and the Court have invested little with respect to infringement, validity, and enforceability relating to this patent in the parallel proceeding.” Pet. at 123. This paints a misleading picture of the parties' dispute.

First, in the district court litigation, Petitioner alleges that both the '364 patent and the '044 patent are invalid for improper inventorship (*see* Ex. 2007 at 1-2) and unenforceable (*id.* at 2, 55 (“Plaintiff's intentional and deceptive failure to name Mr. Willis as a joint inventor constitutes inequitable conduct and renders each of the '364 Patent and '044 Patent unenforceable.”)). In 2019, Lane Shark moved for a preliminary injunction to enjoin Petitioner's infringement of the '364

patent, which issued from the same patent application to which the '044 patent claims priority. *See* Pet. at 18. During the course of related litigation efforts, the parties briefed, exchanged evidence, and elicited live fact and expert testimony before the trial court related to its inventorship and inequitable conduct theories, which reach both the '364 and '044 patents. *See* Exs. 2008 at 1-7 (invention of Patent Owner's technology), 18-22 (Patent Owner rebutting allegations of invalidity and unenforceability); Ex. 2009 at 3-7, 11-22 (setting forth inventorship and inequitable conduct theories); Ex. 2010 at 1-10 (Patent Owner's response showing error of inventorship and inequitable conduct theories); Ex. 2011 at 24-87 ('044 patent inventor testifying regarding inventorship and validity at preliminary injunction hearing), 87-152 (expert testimony regarding validity and enforceability of Patent Owner's patent family). The parties' and the district court's related investment in these arguments and related evidence have been considerable and amount to hundreds of pages of briefing, orders and evidence. *See* Exs. 2008-10. The parties also elicited fact testimony from five witnesses stretching across eight affidavits. *See* Ex. 2012 (Dkt. Nos. 18, 19, 20, 22, 40-1, 40-3, 40-4). Among others, Mr. Travis Odom, a named inventor on the '364 and '044 patents, testified at the district court's preliminary injunction hearing on these issues, was cross-examined by Petitioner's counsel on these issues, and the district court even conducted its own questioning of Mr. Odom on these issues. *See* Ex. 2011 at 24-

87. Following the preliminary injunction hearing, the district court requested and received from both parties supplemental briefing on these same issues. *See* Exs. 2013, 2014. The trial court evaluated this argument and evidence for eleven months before ruling. *See* Ex. 2015.¹⁵ Petitioner fails to inform the Board of any of the foregoing activities, or their relevance to the '044 patent.

Second, in February of this year, Lane Shark amended its complaint in the co-pending litigation to add the '044 patent, provided detailed infringement analysis for multiple claims of that patent against Petitioner's redesigned products which implemented only insubstantial changes, and requested that Petitioner voluntarily cease its infringement of the patent. Because Petitioner would not do so, Lane Shark was forced to again move for a preliminary injunction to enjoin Petitioner's second round of infringement. *See* Ex. 2016. This 25-page preliminary injunction motion is supported by the 25-page expert testimony of professional engineer Fred Smith, and it clearly lays out the manner of Petitioner's infringement of multiple claims of the '044 patent. *Id.*, *see id.* at 7-14. This preliminary injunction motion, of course, was a significant undertaking by Lane Shark, who is seemingly ignored in Petitioner's assessment that the "parties . . .

¹⁵ Because Petitioner voluntarily stopped making and selling the initially-accused products, the Court denied the preliminary injunction motion as effectively moot.

have invested little with respect to infringement, validity, and enforceability relating to this patent.” Pet. at 123.

Third, Petitioner casts the relevant inquiry unduly narrowly by exploring the investment in issues “relating to this patent in the parallel proceeding.” Pet. at 123. The proper inquiry, however, is with respect to the “investment in the parallel proceeding by the court and the parties.” *See Fintiv* at 4. The parties’ and the district court’s investment in the parallel proceeding has been significant, as outlined above. The parallel litigation was filed 19 months ago, in November of 2019. The district court’s docket has more than 130 entries, showing the substantial and sustained efforts of the parties and the court to advance the dispute. *See Ex. 2012.*

Fourth, Petitioner’s argument that “[n]either party has exchanged infringement/invalidity contentions, no claim construction positions have been taken, and no discovery has produced [sic]” is misleading, at best. *See Pet.* at 123. In connection with the preliminary injunction motions, Patent Owner provided detailed infringement contentions, supported by the inventor’s declaration in respect to the infringement of the ‘364 patent (a knockoff of Patent Owner’s LS2 brush cutter product) and an expert’s declaration in respect to infringement of the ‘044 patent. *See Ex. 2008; Ex. 2019; Ex. 2016 at pdf pages 74-90.* The declarations provided detailed claim charts providing precise infringement

contentions on every element of every infringed claim. *See id.* Petitioner also provided an expert declaration that provided detailed invalidity opinions, that were the subject of cross-examination by counsel and the Court at the preliminary injunction proceeding. Ex. 2009 at pdf pages 87-133; Ex. 2011 at 87-152.

Petitioner's suggestion that no infringement or invalidity contentions have been exchanged is intellectually dishonest.

Importantly, the analysis of whether contentions have been served – indicating the investment by the parties and the Court in the litigation – is conducted “at the time of the institution decision.” *Fintiv* at 9-10. After denying the motion to stay, the Court issued a scheduling order requiring the parties to provide their respective formal contentions long before the institution decision. Ex. 2020 at 1-4. In accordance with the Court's Order, on June 4, 2021, Patent Owner served its formal infringement contentions concerning both the '364 and '044 patents. Ex. 2018. Petitioner has been ordered serve its invalidity and non-infringement contentions by July 2, 2021. Ex. 2020 at 2. Beyond the formal contentions, by the time of the institution decision, the parties will also have exchanged claim terms to be construed, proposed claim constructions for each such term, and expert witness reports. Ex. 2020. at 5; Ex. 2006 at 2. Fact discovery closes just five weeks (October 19, 2021) after the Board's deadline to issue its institution decision. Ex. 2006 at 2.

Petitioner's argument that "no discovery has produced [sic]" is also misleading in several other respects. First, that argument ignores the abundant production of witness testimony and evidence the parties produced in connection with the preliminary injunction proceedings, as outlined above. Petitioner has produced more than 800 pages of electronic communications between '044 patent inventor Mr. Odom and the purportedly omitted inventor on the '044 patent related to the issues of inventorship and related allegations of inequitable conduct. *See, e.g.* Ex. 2009 at pdf pages 56-77 (excerpts of same). Additionally, and despite Petitioner's gamesmanship to avoid discovery and document production, Petitioner has responded to Patent Owner's first set of written discovery and it has already produced thousands of pages of documents. Ex. 2021. Since filing its petition, Petitioner has served a comprehensive set of written discovery directed to Patent Owner. Exs. 2022-23. Because the parties and the Court have already invested significant time and effort on issues related to the '044 patent, and will invest significantly more before the Board's institution decision, factor 3 weighs heavily against institution.

4. There is Significant Overlap Between the Issues in the Parallel Litigation and Those Raised in the Petition

Petitioner avoids discussing factor 4, which also weighs heavily against institution. Factor 4 investigates the "overlap between issues raised in the petition

and in the parallel proceeding.” *Fintiv* at 12. Instead of explaining how the invalidity issues raised in the Petition are or will be distinct from the invalidity issues presented to the district court, Petitioner argues “[t]he parties have not litigated any validity issues relating to this new patent in the parallel proceeding. No prior-art invalidity contentions have been served.” Pet. 123. This is, at best, misleading given the invalidity issues that were litigated in the preliminary injunction proceeding explained above. *See supra* (discussing contents of Exs. 2008-2011, 2013-2014)

Since the Petition was filed, more has occurred. For example, in response to interrogatories related to invalidity, Petitioner cited and incorporated its Petition arguments as its formal position in the litigation. *See* Ex. 2024 at 7-8 (“Defendants . . . incorporate by reference their proposed mapping of the TB-ONE relative to Claims 3, 4, 10-15, and 17 of the ’044 Patent as set forth in Defendants’ pending post-grant review petition PGR2021-00069.”). In short, the parties have already created an enormous record of argument and evidence of the enforceability of all patents in the ’044 patent family. Accordingly, there is already substantial overlap between issues raised in the petition and also asserted in the parallel litigation, and reason to believe that every argument raised in the Petition will also be asserted in the parallel litigation. Accordingly, this factor weighs against institution.

5. The Petitioner and the Patent Owner are Parties in the Parallel Litigation Proceeding

Petitioner acknowledges that the parties in this proceeding are the same as in the co-pending litigation, and argues that these facts make factor 5 neutral. Pet. at 123. Petitioner is wrong again. Where “the parties in the parallel district court proceeding and [the present] proceeding are the same . . . this factor weighs in favor of exercising discretion to deny institution.” *Verizon Business Network Services LLC V. Huawei Technologies Co. Ltd.*, IPR2020-01278, Paper 12 at 16 (PTAB, January 26, 2021); *see also Amazon Inc. v. FreshHub, Ltd.*, IPR 2020-01145, Paper 10 at 17 (PTAB, Jan. 11, 2021) (“the parties are the same in the *inter partes* review and in the parallel litigation Thus, this factor supports denying institution.”).

6. Secondary Considerations of Non-Obviousness and Other Factors Overwhelmingly Counsel for Denying Institution

Under factor 6, the Board considers other factors bearing on its discretionary determination, including the merits of the Petition. *Fintiv* at 14-16. As discussed throughout this Preliminary Response, the Petition lacks substantial merit. Two of Petitioner's Grounds are moot because each is directed to patent claims which have been disclaimed. *See* Section IV.A. Petitioner's written description argument (Ground 6) is based on a claim construction it never proposed and which makes no sense—a POSITA would readily appreciate that the Patent Owner was in

possession of a working example of the claimed brush cutter, including the recited “receiving structures” which include “a set of holes formed in the mounting plate.” See Section IV.C. Petitioner's remaining grounds for institution all rely on the *Yang* reference which, as explained by expert witness Fred Smith, lacks at least four limitations of the remaining challenged claims. See Section IV.B.

Perhaps most importantly, the circumstances of this dispute are those for which considerations of “efficiency and integrity of the system are best served by denying . . . review.” *Fintiv* at 6; see 35 U.S.C. §326(b). This is so because Petitioner is using its multi-venue approach to deprive the arbiters in those venues of the full slate of relevant facts, evidence, and argument. Allowing the parties' disputes, including Petitioner's invalidity arguments found in the Petition, to be argued in a single venue to a fact finder unencumbered with the limitations found in an Article II proceeding would best serve the interests of efficiency and integrity at the core of the PGR scheme.

For example, Petitioner has adopted inconsistent positions with respect to the '044 patent in each venue. In its Petition, Petitioner contends that the TB-ONE References describe features of the TB-ONE product and in so doing, also disclose every limitation of multiple claims of the '044 patent. See, e.g., Pet. at 94. Yet, when asked in the parallel litigation to admit that the TB-ONE possesses simple limitations of the '044 patent (e.g., blade, motor, or cutting deck), Petitioner denies

that the TB-ONE has any limitation of the claims of the '044 patent. *See* Ex. 2025 at 4-10. Petitioner's inconsistent approach to invalidity and infringement analysis is made possible by the fact that the Board will only substantively review its invalidity arguments. The district court is not similarly encumbered, so it may evaluate invalidity and infringement positions that are at odds with one another, and make related determinations and demand briefing to dispel any inconsistency (assuming that can be done). The district court is therefore a better-positioned arbiter of the dispute.

a) The District Court Can Fully Develop the Record of Secondary Considerations of Non-Obviousness; The Board Cannot

Five of Petitioner's six grounds for institution are based on Section 103 obviousness theories. *See* Pet. at 13-14. In making obviousness determinations, the Board must consider objective indicia of nonobviousness. *Polycom, Inc. v. DirectPacket Research, Inc.*, IPR2019-01235, Paper 69 at 93 (PTAB, Jan. 11, 2021) (citing *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012)). Lane Shark has already amassed significant evidence of the non-obviousness of the subject matter disclosed in the '044 patent and presented it to the district court, a short summary of which is set forth here.

Shortly after Lane Shark introduced its LS2 product, a preferred embodiment described in the '044 patent, it began to achieve enormous commercial success and acclaim in the industry. *See, e.g.*, Ex. 2019 at 13-16. This is because Lane Shark's multi-position LS2 brush cutter was a massive advance on incumbent brush cutter products. *See, e.g.*, Ex. 2019 at pdf page 130 ("that's a Bush Hog on steroids!"), 132 (WOW!!!! It's an articulated bush hog!! Gotta have one!!"); Ex. 2026 ¶73.

This success did not go unnoticed by tractor attachment incumbents, and it led Petitioner's President to offer to purchase Lane Shark for one million dollars. Ex. 2019 at 17-19. Trailblazer's President threatened Lane Shark that it should take the offer or Petitioner would enter the market that Lane Shark created. Ex. 2009 at pdf page 438. Lane Shark warned Trailblazer's President that doing so would be unwise because Lane Shark was securing patent protection for its products. Ex. 2019 at 17-18.

After Lane Shark rejected this offer and Petitioner's threat, and with knowledge of the patent pending, Trailblazer directly copied Lane Shark's product to create its own knock-off competitive products. Trailblazer purchased, disassembled, and reverse-engineered Lane Shark's LS2 brush cutter product, and introduced its infringing copies to the market as its own innovative creation. Ex. 2025 at 10.

Lane Shark presented a substantial body of copying evidence to the district court, including live witness testimony. *See generally* Ex. 2011. The district court considered this evidence and expressed its preliminary agreement with Lane Shark's copying allegations: "Doesn't it cut against [Petitioner] that they with knowledge of the patent pending decided to market a product which is if not a copy, a very similar product to the one that Mr. Odom was selling?" *Id.* at 20. Because Trailblazer produced such an exact copy of the preferred embodiment of Lane Shark's patents, it has not presented a single substantive defense to Lane Shark's infringement allegations to date, despite repeated invitations by Lane Shark and the district court to share them. Lane Shark has also made repeated informal and formal efforts to secure sales data for Petitioner's products which are accused of practicing Lane Shark's patents, efforts which Petitioner has repeatedly rebuffed. *See, e.g.,* Ex. 2024 at Interrogatory 5 (providing no data and stating that Petitioner is merely "willing to meet and confer on the sales and financial data it will provide based on the specifics of its accounting system").

Importantly, correspondence between the parties reveals Petitioner's desire to shield the Board from a complete record of secondary considerations. Lane Shark expressed its intent to present secondary considerations evidence to the Board and explained that the parallel litigation's protective order should allow

confidential submission of evidence of non-obviousness for the Board's consideration:

We are worried that discovery may evidence, for example, indicia of non-obviousness of Lane Shark's patented technology (e.g., Defendants' copying of Lane Shark's patented product, commercial success of products practicing the patent, etc.). If this material is designated confidential or AEO, Lane Shark may find itself obligated both to disclose this information to the patent office under the requirements of patent regulations, but also not to disclose that information under the requirements of the protective order. To avoid this situation, we've proposed some redline changes to the proposed protective order, each of which clarifies that confidential information may be disclosed to the patent office, so long as it is submitted under the confidentiality procedure outlined in MPEP 724.02. We feel this is the best way to avoid the situation described above while still protecting both parties' confidential information

Ex. 2027 at 3-4. Petitioner rejected Lane Shark's proposal, and would only agree to language that allows for submission of such information to the Board by agreement of the producing party or by a motion at the trial court showing the necessity of presenting that information to the Board. *See id.* at 1.

Evidence about Petitioner's design process and sales figures for its knock-off and infringing products will undoubtedly be designated as confidential under the trial court's protective order, so the Board will be made aware of these materials only where Petitioner consents to it or where Lane Shark has shown through contested motion practice that it meets the necessary standard. These same barriers to a fulsome evaluation of obviousness allegations do not exist in the

trial court, so it is a more efficient venue with a more developed record with which to make obviousness determinations. And the trial court has already heard live witness testimony on issues including validity of Lane Shark's inventions, purported unenforceability for improper inventorship and inequitable conduct, commercial success, and copying, and can make credibility determinations based on demeanor and comportment—evaluations the Board cannot make in this venue.

Accordingly, the trial court is the venue in which the disputed issues presented in the Petition may more efficiently and more fully be developed, and in which a determination based on the entirety of the factual record may be achieved. For this reason, the Board should exercise its discretion and deny the petition.

V. CONCLUSION

In view of the foregoing, the Patent Owner respectfully requests the Board DENY institution of the Petition, as the claims of the '044 patent suffer no Section 103 or Section 112 deficiencies.

Date: June 25, 2021

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CERTIFICATION OF WORD COUNT UNDER 37 C.F.R. § 42.24(d)

Under the provisions of 37 C.F.R. § 42.24(a), (b), and (d) the undersigned hereby certifies that the word count for the foregoing Patent Owner Preliminary Response totals 18,067 words, excluding the parts exempted by 37 C.F.R. § 42.24(a). Accordingly, this Petition is under the word count limit of 18,700 words. This word count was made by using the built-in word count function tool in the Microsoft Word software used to prepare the document.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on June 25, 2021, the forgoing with exhibits was served via email on the counsel of record for the Petitioner.

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