IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

Chervon (HK) Limited,

Chervon North America Inc.,

Plaintiffs,

v. : C.A. No. 19-1293-LPS

One World Technologies, Inc., Techtronic Indus. Co. Ltd., Homelite Consumer Prods., Inc.

Defendants.

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MEMORANDUM OPINION

November 9, 2020 Wilmington, Delaware



Plaintiffs Chervon (HK) Limited and Chervon North America Inc. ("Plaintiffs" or "Chervon") initiated this action against Defendants One World Technologies, Inc., Techtronic Industries Co. Ltd., and Homelite Consumer Products, Inc. ("Defendants" or "One World") on July 11, 2019, alleging infringement of U.S. Patent Nos. 9,060,463 ("the '463 patent"), 9,596,806 ("the '806 patent"), 9,826,686 ("the '686 patent"), 9,986,686 ("the '6686 patent"), 10,070,588 ("the '588 patent"), 9,648,805 ("the '805 patent"), 10,477,772 ("the '772 patent"), 10,485,176 ("the '176 patent"), and 10,524,420 ("the '420 patent") (collectively, "the Patents-in-Suit"). (See D.I. 45; see also D.I. 70 Ex. 1 at 3 (Chervon's list of initial asserted claims)) The technology at issue generally relates to battery-powered gardening tools, including safety features for lawnmowers. (See D.I. 70 at 1-2; see also D.I. 45 at 3-4 ¶ 13-16)

Presently before the Court is the issue of claim construction. The parties have submitted claim charts, technology tutorials, claim construction briefs, and supporting materials. (D.I. 62, 68, 70-73, 82, 84-85, 100) The Court held a claim construction hearing on September 10, 2020. (D.I. 102) ("Tr.")

I. LEGAL STANDARDS

The ultimate question of the proper construction of a patent is a question of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). "It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal citation and quotation marks omitted). "[T]here is no magic formula or catechism for conducting claim construction." *Id.* at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources "in light of the statutes and policies that inform patent law." *Id.*

"[T]he words of a claim are generally given their ordinary and customary meaning . . . [which is] the meaning that the term would have to a person of ordinary skill in the art [("POSA")] in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13 (internal citations and quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). The patent "specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Vitronics Corp. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While "the claims themselves provide substantial guidance as to the meaning of particular claims terms," the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, "[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent." *Id.* (internal citation omitted).

It is likewise true that "[d]ifference among claims can also be a useful guide. . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Id.* at 1314-15 (internal citation omitted). This "presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should not be read into the independent claim." *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that "the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316. It bears emphasis that "[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)).

In addition to the specification, a court "should also consider the patent's prosecution history, if it is in evidence." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). The prosecution history, which is "intrinsic evidence," "consists of the complete records of the proceedings before the [Patent and Trademark Office] and includes the prior art cited during the examination of the patent." *Phillips*, 415 F.3d at 1317. "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower that it would otherwise be." *Id.*

"In some cases, . . . the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science of the meaning of a term in the relevant art during the relevant time period." *Teva*, 135 S. Ct. at 841. "Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries "endeavor to collect the accepted meanings of terms used in various fields of science and technology." *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful "to ensure that the court's

understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* Nonetheless, courts must not lose sight of the fact that "expert reports and testimony [are] generated at the time of and for the purposes of litigation and thus can suffer from bias that is not present in intrinsic evidence." *Id.* Overall, while extrinsic evidence "may be useful to the court," it is "less reliable" than intrinsic evidence, and its consideration "is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

Finally, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct interpretation." *Osram GmbH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (quoting *Modine Mfg. Co. v. U.S. Int'l Trade Comm'n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

II. CONSTRUCTION OF DISPUTED TERMS¹

A. "safety shift structure"²

Plaintiffs

"receiving groove or slot"³

Defendants

"receiving groove whose end wall displaces the trigger assembly"

Court

"receiving groove or slot whose end wall displaces the trigger assembly"

The '463 patent generally describes a lawnmower with a "safety switch mechanism capable of timely disabling a lawnmower upon accidental retraction of a handle." ('463 patent at 1:37-39) For example, claim 1 of the '463 patent is directed to a "slide-triggered safety switch mechanism" with a "safety switch assembly mounted inside the pipe sleeve" comprising "a trigger assembly configured to trigger the safety switch when the safety shift structure of the inner pipe is moved relative to the pipe sleeve from a safety location and to reset the safety switch when the safety shift structure returns to the safety location." ('463 patent, claim 1) Both parties agree that "safety shift structure" involves a "receiving groove," and the Court is

¹ The parties' initial proposed claim chart raised disputes over the terms "locks/unlocks," "trigger switch," "[positioned] between the outer pipe and the inner pipe," and "[enables the/disables the] operation of the operation assembly to the motor" (*see* D.I. 62), but the parties later advised that they no longer seek the Court's construction of these four terms (D.I 68 at 1). The Court further notes that it will adopt the parties' agreed-upon construction of "safety assembly," which is a "collection of components fitted together that is electrically connected to a control circuit." (D.I. 100 at 1)

² This term appears in the '463 patent, claims 1, 3, 5, 12-13, and 15. (See D.I. 100 Ex. A at 1)

³ Plaintiffs' offered this proposed construction shortly before the hearing. (*See* D.I. 100 at 1 & Ex. A at 1; *see also* Tr. at 7)

persuaded by Plaintiffs that the "safety shift structure" may also be a "slot." (*See id.* at Fig. 2, 2:59-60, 4:32-41) (referring to element 101 in Figure 2 as both a "receiving groove" and "slot")

The Court also agrees with Defendants that inclusion of the phrase "whose end wall displaces the trigger assembly" is correct (based on the claim language and written description in the specification) and provides useful context on how the "safety shift structure" operates (as a POSA would understand). (*See* Tr. at 29-30)⁴

B. "motor",5

Plaintiffs

"electric motor"

Defendants

Plain and ordinary meaning

Court

No construction necessary

The Patents-in-Suit are generally directed to gardening tools and lawnmowers and certain claims require a "motor." (*See*, *e.g.*, '463 patent, claim 12; '806 patent, claim 1) Plaintiffs seek to limit "motor" to "electric motor," but they have failed to show a clear and unmistakable

⁴ Defendants' reliance on *Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295 (Fed. Cir. 2004), does not have the persuasive force they suggest. (*See, e.g.*, Tr. at 16-17; D.I. 72 at 3) In *Irdeto*, 383 F.3d at 1302-03, the patentee admitted during prosecution that the disputed terms did not have accepted meanings in the art and "unequivocally directed the patent examiner, as well as the public, to the specification as the complete source of meaning for the disputed terms," thus exhibiting a "clear intent to rely on the four corners of his patent to define fully the terms." The record here does not similarly support narrowing claim scope.

⁵ This term appears in the '463 patent, claim 12; '806 patent, claims 1, 3, 6-8; '686 patent, claims 1-2, 5, 8-12, 15, 18-20; '6686 patent, claims 1-2, 5, 8-12, 15, 18-20; '588 patent, claims 1-2, 5, 8-12, 15-16; '772 patent, claims 1-2, 5, 8-11, 17-18; '176 patent, claims 1-2, 5, 8-12, 25-28; and the '420 patent, claims 1, 9-10. (*See* D.I. 100 Ex. A at 1-4)

disavowal of non-electric motors. *See Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1333 (Fed. Cir. 2010).

Plaintiffs point out that "[n]umerous Asserted Claims expressly state that the motor is powered by an electric power source" (D.I. 70 at 6), but this would inform a POSA that a "motor" does not necessarily and always have an electric power source, and does so only where the motor is expressly referred to as an "electric motor" (*see* D.I. 72 at 5 (citing '806 patent, claims 1 & 6); Tr. at 47-48). The specification states that the claimed embodiments are not limited to electric motors. (*See* '806 patent, 2:46-48 ("The following description is explained with the motor being an electric motor – which is not intended to be limiting."); *see also id.* at 1:46-49 ("Particularly, the gardening tool is a mower, where in the motor is an electric motor.")) Moreover, "even where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Martek Biosciences Corp. v.***Nutrinova, Inc., 579 F.3d 1363, 1381 (Fed. Cir. 2009) (internal quotation marks omitted).

The prosecution history (*see* D.I. 62 Ex. K at JA-438-39) also does not support a narrow reading of the claim term; the patentee's statements to the Examiner in overcoming certain prior art does not reflect a clear and unmistakable disclaimer of non-electric motors. (*See* D.I. 84 at 6-7; *see also Omega Eng'g, Inc. v. Rayteck Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003))

Nor does the extrinsic evidence presented by the parties, which is in any event ambiguous, persuade the Court to narrow the scope of the claims. (*Compare, e.g.*, D.I. 70 at 7-8; D.I. 71 Ex. 3 at 363 (defining "motor [ELEC]" to mean "[a] machine that converts electric energy into mechanical energy . . . [a]lso known as electric motor") *with* D.I. 72 at 5-6; D.I. 73 Ex. 2 at 760 (defining "motor" to mean "any of various power units that develop energy or

impart motion," including internal combustion "gasoline engine" and "a rotating machine that transforms electrical energy into mechanical energy"); *see also* Tr. at 48-49)

Having resolved the parties' dispute and determined that the claim term "motor" is not limited to electric motors, there is no need to further construe this term.

C. "power supply circuit"

Plaintiffs

No construction necessary/plain and ordinary meaning; or,

"one or more components that provide a current path between the electrical power source and the motor"

Defendants

Plain and ordinary meaning which is "the path between an electrical power source and the motor taken by current that drives the motor"

If not construed in this fashion, then indefinite

Court

"the path, consisting of one or more components, between an electrical power source and the motor taken by current that drives the motor"

During the *Markman* hearing, the parties agreed to construe "power supply circuit" as "the path, consisting of one or more components, between an electrical power source and the motor taken by current," but disagreed about whether to include "that drives the motor" at the end of the construction. (*See* Tr. at 68-69) The Court agrees with Defendants that this additional phrase is not superfluous and will make clear to the jury that a POSA would understand that the current is driving the motor.

⁶ This term appears in the '806 patent, claims 1, 3, 6-8; '686 patent, claims 1-2, 5, 9-12, 15, 19-20; '6686 patent, claims 2, 5, 9-10, 12, 15, 19-20; '588 patent, claims 2, 5, 8-12, 15-16; '772 patent, claims 2, 5, 8-10; and the '176 patent, claims 1-2, 5, 8-10. (*See* D.I. 100 Ex. A at 4-6)

D. "trigger",7

Plaintiffs

No construction necessary/plain and ordinary meaning; or,

"one or more movable parts for activating a device or mechanism"

Defendants

"a lever manually pulled against a biasing force, and not a push button"

Court

"one or more movable parts for activating a device or mechanism"

The intrinsic evidence supports Plaintiffs' proposed construction, as the specification refers to "trigger" in the context of a movable element used to activate the claimed device. (See'806 patent at 5:66-6:12; '588 patent at 6:4-17; '176 patent at 6:30-40 (disclosing that to start claimed device, "trigger B" is "triggered" when "trigger B moves to a corresponding position"); see also '806 patent at 5:27-34 (referring to "trigger B" as being pulled)) The specification further discloses that the "operation assembly" "may also comprise other operating members such as a button." (See '806 patent at Fig. 1, 2:55-60; see also '588 patent at 2:62-67; '176 patent at 3:19-23) Defendants have not shown that the specification unambiguously distinguishes between a trigger and a button, such that a negative limitation is warranted. (See D.I. 72 at 9; Tr. at 83; see also WesternGeco LLC v. ION Geophysical Corp., 735 F. Supp. 2d 623, 637 (S.D. Tex. 2010) ("Importing negative limitations into a claim absent an explicit disavowal is generally disfavored.")) Defendants' extrinsic evidence (see D.I. 73 Ex. 4) does not alter this outcome (and is anyway ambiguous, providing some support for Plaintiffs' proposal to

⁷ This term appears in the '806 patent, claim 11; '588 patent, claim 19; and '176 patent, claim 11. (*See* D.I. 100 Ex. A at 6-8)

include buttons).

E. "triggering the control circuit"8

Plaintiffs

No construction necessary/plain and ordinary meaning; or,

"activat[e/ing] the control circuit"

Defendants

"send[ing] a signal to the control circuit"

Court

"activat[e/ing] the control circuit"

Certain claims of the Patents-in-Suit are directed to a lawn care apparatus with "a safety assembly comprising a trigger switch for triggering the control circuit to cause the control circuit to disable operation of the motor." (*See* '772 patent, claim 11; '420 patent, claim 1) The Court agrees with Plaintiffs that "triggering the control circuit" means "activat[e/ing] the control circuit." This is supported by the intrinsic evidence, which distinguishes between "triggering" and "sending a signal." (D.I. 82 at 10; *see also* '772 patent, claim 8 ("the switch is configured to be triggered by the operation assembly to activate the motor, and the signal source sends the control signal to the power supply circuit"); *id.* at 6:23-46 (distinguishing between switch that is "triggered" and signal source device that sends control signal))

 $^{^{8}}$ This term appears in the '772 patent, claim 11 and '420 patent, claim 1. (See D.I. 100 Ex. A at 12-14)

F. "switch"9

Plaintiffs

No construction necessary/plain and ordinary meaning; or,

"a device for making, breaking, or changing one or more connections in an electrical circuit"

Defendants

Plain and ordinary meaning, which is "a manual or mechanical actuated device for making, breaking, or changing the connections in an electrical circuit"

If not construed in this fashion, then indefinite

Court

"a device for making, breaking, or changing one or more connections in an electrical circuit"

The parties' primary dispute is whether this term should be limited to a "manual or mechanical actuated device," as Defendants propose. (*See* Tr. at 97, 101) The Court agrees with Plaintiffs that limiting "switch" in this manner would read out of the claims certain embodiments disclosed in the specification, including a proximity switch, a Hall switch (e.g., magnets), and a photoelectric switch. ('806 patent at 6:21-24) Defendants' argument that these embodiments must be, at some point upstream in the process, manually or mechanically actuated does not support a conclusion that "switch" should be construed as Defendants propose. (*See* Tr. at 102-04, 107)

⁹ This term appears in the '806 patent, claims 1-4, 6, 8-9, 11-13; '686 patent, claims 1-4, 9, 11-14, 19; '6686 patent, claims 2-4, 9, 12-14, 19; '588 patent, claims 2-4, 8-9, 12, 15-17, 19-21; '772 patent, claims 2-4, 8, 9; and the '176 patent, claims 2-4, 7-9, 22, 27. (*See* D.I. 100 Ex. A at 8-10)

G. "signal source [device]" 10

Plaintiffs

No construction necessary/plain and ordinary meaning; or,

"a device that can send a signal"

Defendants

Indefinite

Court

"a device that can send a signal"

Defendants argue "signal source [device]" is indefinite because the Patents-in-Suit conflate the term with "switch." (*See* D.I. 72 at 11-13 (citing '806 patent, claim 2, which states: "wherein the switch is one of a contact switch, a proximity switch, a Hall switch, or photoelectric switch, and wherein the signal source device is one of a contact switch, a proximity switch, a Hall switch, or a photoelectric switch"); D.I. 88 Ex. 1 at ¶¶ 17-19 (Defendants' expert opining on alleged indefiniteness of "signal source [device]")) Defendants have failed to show by clear and convincing evidence that a POSA would not know, with reasonable certainty, the scope of the claims. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

The intrinsic evidence, including the claim language, distinguishes between a "switch" and "signal source [device]." For example, claim 8 of the '588 patent states: "the switch is configured to be triggered by the operation assembly to activate the motor, and the signal source sends the control signal to the power circuit to disable activation of the motor..." ('588 patent

¹⁰ This appears in the '806 patent, claims 1-4, 6, 8-9; '686 patent, claims 1, 5-7, 9-11, 15-17, 19-20; '6686 patent, claims 5-7, 9-10, 15-17, 19-20; '588 patent, claims 5-8, 10-11, 15-17; '772 patent, claim 5-8, 10; and the '176 patent, claims 5-8, 10, 21, 28. (*See* D.I. 100 Ex. A at 10-12)

at 8:66-9:5; *see also* Tr. at 120) Moreover, Defendants' own expert appears to acknowledge that a POSA would have reasonable certainty as to the scope of the claims. (*See* D.I. 88 Ex. 1 at ¶ 14) (Mr. Reed opining that Defendants' proposed construction of "power supply circuit" – which the Court has largely adopted – "is consistent with the specification's distinction of a switch 'in' the power supply circuit from a signal source sending a control signal 'to' the power supply circuit") (relying on '806 patent at 5:63-64)

H. "repulsion generating member" 11

Plaintiffs

No construction necessary/plain and ordinary meaning; or,

"a structure that applies a biasing force" or "a biasing structure"

Defendants

"a member that generates a force repulsing the operating lever away from the locking position and towards the releasing position"

Court

"a structure that applies a biasing force"

The '805 patent provides a device that locks a mower's telescopic push rods and provides an indication to the user when the rods are not properly locked. (*See* '805 patent at Abstract, 1:38-52) A "repulsion generating member" generates "a repulsion force for application to the operating lever during the movement of the operating lever from the releasing position to the locking position." (*Id.* at 6:9-12) The patent discloses three embodiments of a "repulsion generating member:" a torsion spring (*id.* at Fig. 1, 3:5-13), a tower-shaped spring (*id.* at Fig. 7, 4:20-23), and a pair of magnets (*id.* at Fig. 8, 4:35-39). According to the specification, "when the

 $^{^{11}}$ This term appears in the '805 patent, claim 1. (See D.I. 100 Ex. A at 14)

operating lever does not completely reach the locking position due to abnormal operation, the operating lever will return to the releasing position because of the repulsion force, and thereby provide an indication to the user" that the operating lever is not locked in position. (*Id.* at 2:24-28; *see also id.* at 4:2-13)

The parties dispute whether Defendants' proposal to include additional functional language – that the "repulsion generating member" must push the operating lever "away" from the locked position and "towards" the releasing position – is appropriate. (*See* D.I. 70 at 20; D.I. 72 at 16-17; Tr. at 128-24) According to Defendants, "[i]f the repulsion force were not pushing *away* from the locking position," the indication to the user that the device is not locked "could not happen." (D.I. 72 at 17) (emphasis in original)

The Court will adopt Plaintiffs' proposed construction. (*See* Tr. at 135) While Defendants' proposal appears to be consistent with parts of the specification, including the three specifically disclosed embodiments, the patentee did not clearly "intend for the claims and the embodiments in the specification to be strictly coextensive." *Phillips*, 415 F.3d at 1323; *see also Pfizer, Inc. v. Ranbaxy Lab'ys. Ltd.*, 457 F.3d 1284, 1290 (Fed. Cir. 2006) (declining to limit term to disclosed embodiment, for reasons including patentee's description of examples as illustrative). The '805 patent explains that the embodiment depicted in Figures 1, 7, and 8 are "illustrative," "exemplary" locking devices. ('805 patent at 2:35-54, 3:5, 4:20, 4:35)

Nor have Defendants persuaded the Court that their construction must be adopted to "breath life" into the disputed term. (Tr. at 134) The plain language of the claims (i.e., "a repulsion force for application to the operating lever during the movement of the operating lever

¹² Defendants once again point to *Irdeto*, but it is no more helpful to Defendants in connection with this dispute.

from the releasing position to the locking position") already defines what the "repulsion generating member" does and already incorporates whatever directional language is needed. (See D.I. 82 at 10)

III. CONCLUSION

The Court will construe the disputed terms as explained above. An appropriate Order follows.