UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SIMPLEHUMAN, LLC,

Plaintiff,

vs.

ITOUCHLESS HOUSEWARES AND PRODUCTS, INC.,

Defendant.

Case No. 4:19-cv-02701-HSG

CLAIM CONSTRUCTION ORDER

Re: Dkt. No. 55

Plaintiff simplehuman, LLC ("simplehuman") brings this patent infringement action against defendant iTouchless Housewares and Products ("iTouchless") for alleged infringement of U.S. Design Patent Nos. D644,807 (the "D807 Patent") and D729,485 (the "D485 Patent"), as well as U.S. Patent No. 6,626,316 (the "'316 Patent"). Now before the Court are the parties' claim construction disputes. After carefully reviewing and considering the parties' arguments and the evidence submitted,[1] the Court **ADOPTS** the following constructions.

I. LEGAL STANDARD

Claim construction is a question of law to be determined by the Court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996). "The purpose of claim construction is to determine the meaning and scope of the patent claims asserted to be infringed." *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (quotation omitted).

Generally, claim terms should be "given their ordinary and customary meaning"—in other words, "the meaning that the term[s] would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en

[1] This Order follows claim construction briefing and a claim construction hearing. *See* Dkt. Nos. 55 ("Op. Br."), 63 ("Resp. Br."), 67 ("Reply").

banc) (quotation omitted). There are only two circumstances where a claim is not entitled to its plain and ordinary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

When construing claim terms, the Federal Circuit emphasizes the importance of intrinsic evidence such as the language of the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1312–17. The claim language can "provide substantial guidance as to the meaning of particular claim terms," both through the context in which the claim terms are used and through comparison with other claims in the patent. *Id.* at 1314. The specification is likewise a crucial source of information. *Id.* at 1315–17. Although it is improper to read limitations from the specification into the claims, the specification is "the single best guide to the meaning of a disputed term" and "usually dispositive." *Id.* at 1315; *see also Merck & Co. v. Teva Pharm. USA, Inc.*, 347 F.3d 1367, 1371 (Fed. Cir. 2003) (explaining that "claims must be construed so as to be consistent with the specification"). The prosecution history, while often lacking the "clarity" of the specification, also constitutes intrinsic evidence that provides "evidence of how the PTO and the inventor understood the patent." *Phillips*, 415 F.3d at 1317.

Despite the importance of intrinsic evidence, courts may also consider extrinsic evidence—technical dictionaries, learned treatises, expert and inventor testimony, and the like—to help construe the claims. *Id.* at 1317–18. For example, dictionaries may reveal what the ordinary and customary meaning of a term would have been to a person of ordinary skill in the art at the time of the invention. *Frans Nooren Afdichtingssystemen B.V. v. Stopaq Amcorr Inc.*, 744 F.3d 715, 722 (Fed. Cir. 2014) ("Terms generally carry their ordinary and customary meaning in the relevant field at the relevant time, as shown by reliable sources such as dictionaries, but they always must be understood in the context of the whole document—in particular, the specification (along with the prosecution history, if pertinent)."). Expert testimony can also help "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

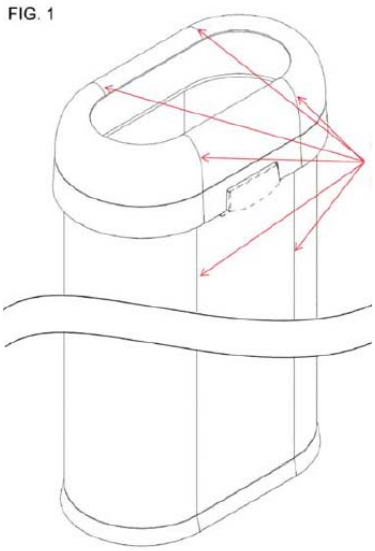
the pertinent field." *Phillips*, 415 F.3d at 1318. Extrinsic evidence is, however, "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Id.* at 1317 (quotation omitted).

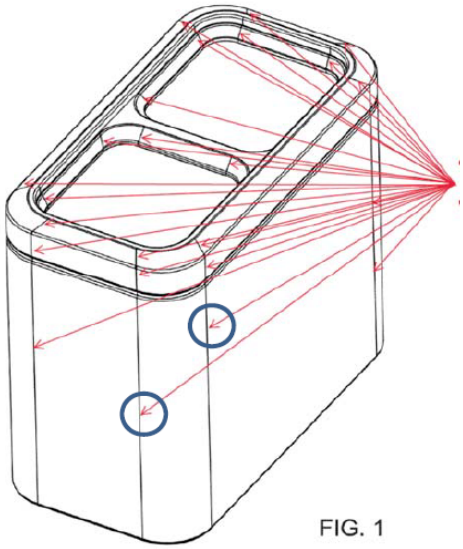
With respect to design patents, claim construction may be used, for example, to describe the role of particular drafting conventions (e.g., broken lines), to assess and describe the effect of the prosecution history, or to distinguish ornamental from purely functional features of the design. *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 680 (Fed. Cir. 2008) (en banc). However, the Federal Circuit has cautioned against excessive verbal description. *Id.* at 679; *Crocs, Inc. v. Int'l Trade Com'n*, 598 F.3d 1294, 1302 (Fed. Cir. 2010). Because design patents are usually "claimed as shown," the illustration in the patent "is its own best description." *Crocs*, 598 F.3d at 1302-03 (citation omitted). Verbal description risks placing undue emphasis on particular features at the expense of the "overall impression" of the design to an ordinary observer, as required by the test for infringement. *See id.* Nevertheless, the amount of detail to be provided by claim construction lies within the discretion of the court. *Egyptian Goddess*, 543 F.3d at 679.

II. ANALYSIS

A. Design Patents

The parties first dispute whether certain lines in the D807 and D485 Patents are "contour" lines or "seams." The below annotated versions of Figure 1 of the D807 Patent and Figure 1 of the D485 Patent, respectively, point out the disputed lines on the claimed trash cans:





simplehuman argues that the disputed lines are "shading" or contour lines meant to demonstrate the general shape of the trash cans. *See* 37 C.F.R. § 1.152 ("Appropriate and adequate surface shading should be used [in design patent views] to show the character of the surfaces represented."). iTouchless, on the other hand, argues that the disputed lines are seams because convention and regulation suggest that light, tightly-spaced lines should be used for shading. *See* 37 C.F.R. § 1.84(m) ("Spaced lines for shading is preferred. These lines must be thin, as few in number as practicable, and they must contrast with the rest of the drawings."). Both parties attach extrinsic evidence that purports to show their preferred line style used as shading.

The specification largely resolves the dispute. The illustrations in the design patents show the disputed lines in views where they cannot possibly represent shading. Starting with the D807 Patent, Figure 1 (represented above) shows that the disputed lines occur on the right side of the trash can. The top view of the trash can (Figure 4) suggests an oval shape where the right side is largely flat. Figure 2, which shows the front view, confirms the general flatness of the right side. Yet Figure 3, which shows the right side view, includes the disputed lines around the center:[2]

FIG. 2

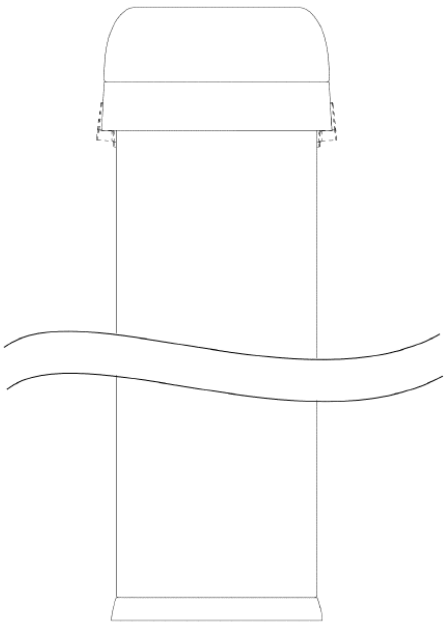
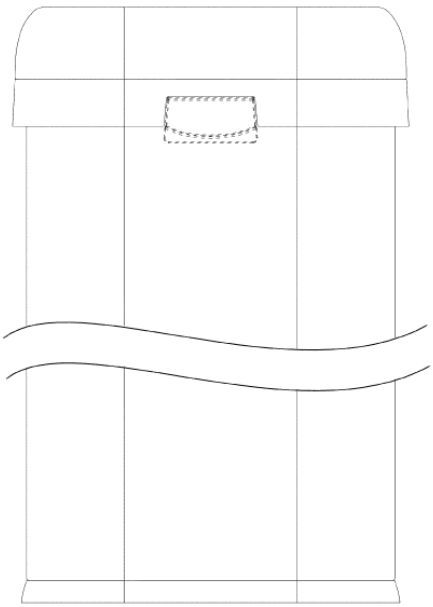
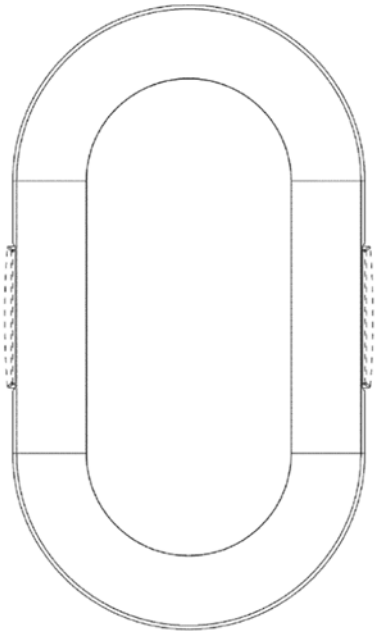


FIG. 3

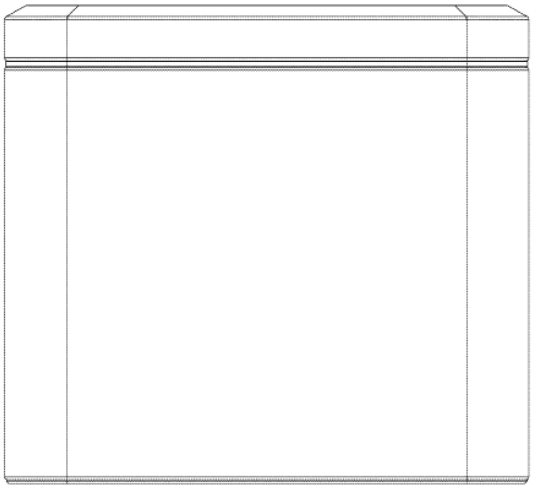


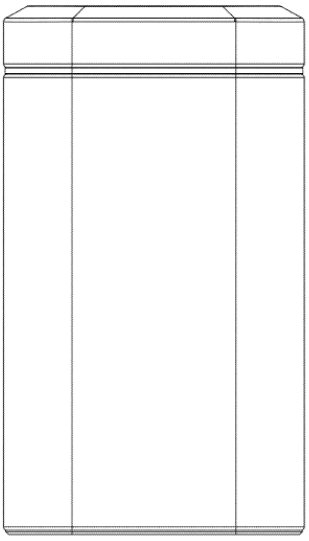
[2] The lines do not represent rounded corners because Figure 2, which shows the front side having the same rounded corners, contains no such lines.

Similarly, the top of the trash can, which is shown in Figures 2 and 3 to be entirely flat, includes the disputed lines in the "top-down" view of Figure 4, where they cannot possibly represent shading.

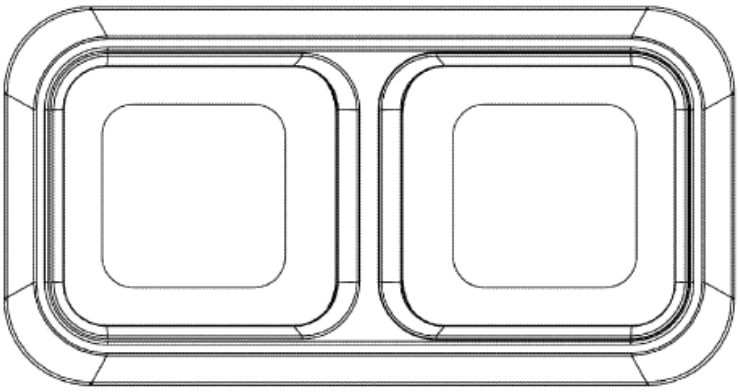


Turning to the D485 Patent, Figures 2 through 4 present a similar story. Considering the views holistically, the claimed design is essentially a rectangular box with rounded corners. Common experience dictates that a straight view of any one side would show an even surface with shading on each end. Yet Figures 2 and 3 show single straight lines on those surfaces, which extend to the entirely flat top:

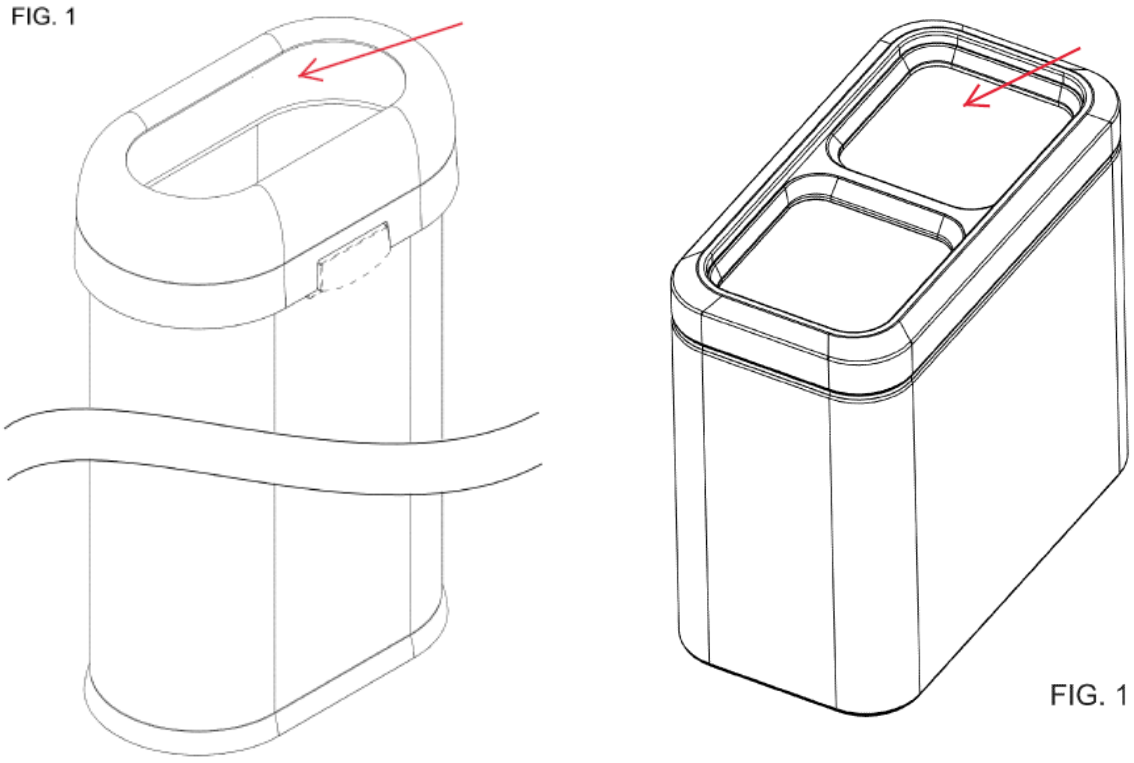




And the top view (Figure 4) again shows the disputed lines from a perspective where they cannot represent shading or contour:



Furthermore, as iTouchless points out, the disputed lines are conspicuously missing from certain locations that have identical contours in both patents, such as the inner surface of the head (but not the inner surface of the body) of the trash can in the D807 Patent:



At most, the disputed lines thus represent a delineation between rounded and flat surfaces. Even by the minimalist standards of shading urged by simplehuman, that does not suffice to show contour because it does not indicate which surface is receding (because it is curved) and includes lines in views where there would be no contour difference (the top down views). Moreover, as iTouchless convincingly argues, the use of straight undifferentiated lines to delineate changes in contour, regardless of perspective, is inherently ambiguous because it cannot distinguish contour changes from ornamental surface features. Accordingly, if this is shading, then it is inadequate under 37 C.F.R. § 1.152.

The only other intrinsic evidence presented in the record lies in the prosecution history. During prosecution, simplehuman initially included both drawings and a photograph, which shows shading where the drawing depicts lines. (*See* Dkt. No. 57 ("Gandy Decl.") Ex. O at 8.) The examiner allowed the claims but included an amendment that removed the photograph because "[d]rawings made with two different drafting techniques cannot be included in the same drawing disclosure." (*Id.* at 39.) The amendment was made pursuant to 37 C.F.R. § 1.152, which states that "[p]hotographs and ink drawings are not permitted to be combined as formal drawings in one application," and which the USPTO enacted because the inclusion of both photographs and drawings "would result in a high probability of inconsistencies between corresponding elements on the drawings as compared with the photographs." *See Manual of Patent Examining Procedure ("MPEP")* § 1503.02 (V), U.S.P.T.O. (June 2020).

simplehuman now argues that the originally submitted photograph confirms that the disputed lines represent shading, instead of seams. Ordinarily, the prosecution history is "always relevant" to claim construction. *SuperGuide Corp. v. DirecTV Enter., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). In this case, however, the examiner excluded the photograph precisely because it was likely to contradict the rest of the application. The rejection was made on purely procedural grounds and made no comment on the substance of the photograph, other than to underscore its unreliability. These are starkly different facts than most prosecution history scenarios. Where part of the prosecution history was excluded because of a high probability of contradicting the rest of the specification, a party cannot reasonably rely on it to contradict the rest of the specification.

Accordingly, the intrinsic evidence suggests that the disputed lines are not shading or contour lines, which implies that they are ornamental features. The extrinsic evidence does not change that conclusion. iTouchless shows that that the USPTO prefers design patent applicants to use "[s]paced lines" that are "thin, as few in number as practicable, and . . . contrast with the rest of the drawings" for shading. 37 C.F.R. § 1.84(m). The design patent application guide published by the USPTO shows two "common" types of shading, including straight lines and stippling, that look different from the lines in the asserted patents.[3] iTouchless shows that simplehuman's own unasserted patents, as well as the utility patent asserted in this case, use the conventional shading styles. *See, e.g.*, '316 Patent at Fig. 1.

simplehuman counters with a declaration by a former patent examiner, James Gandy, who provides examples of other patents that purportedly use straight lines to delineate a change in contour (such as the change from straight to curved surface).[4] On balance, these examples are not sufficient to overcome the otherwise clear intrinsic evidence. Ultimately, even if the Court were to credit Mr. Gandy's opinion that such drafting techniques are common, that would not render those techniques adequate or definite. Drafting conventions are only helpful when they clarify, not when they create ambiguity. Here, because the purported drafting technique makes it impossible to distinguish contour changes from ornamental lines, it is fundamentally unhelpful. Thus, the Court declines to incentivize further ambiguous drafting and adopts the "plain meaning" interpretation that the disputed lines are *lines*—i.e., ornamental features in the form of seams, paint, or something else that appear as actual lines on the trash can.

Accordingly, the Court adopts iTouchless's proposed construction.

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[3] *See Design Patent Application Guide*, U.S.P.T.O. (accessed Dec. 2, 2020), *available at* https://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/design-patent-application-guide.

[4] Mr. Gandy also provides an opinion on the history of 37 C.F.R. § 1.152, claiming that the USPTO changed the regulation to encourage, rather than mandate, the use of shading in order to align U.S. practice with the Hague Convention. Gandy Decl. ¶ 21. However, this part of the declaration appears to be self-contradictory because Mr. Gandy also opines that the Hague Convention prohibits shading altogether (*id.* ¶ 20), such that allowing shading would not be in conformity with the Hague Convention. The Court accordingly disregards this aspect of Mr. Gandy's declaration.

B. Utility Patent

The '316 Patent is directed to an improved trash can assembly. *See* '316 Patent at title, abstract. The '316 Patent purports to solve three problems. First, the foot pedal on many trash cans is "positioned awkwardly" in that it "extend[s] a considerable distance from the body of the trash can," which presents tripping and kicking risks. *Id*. at 1:30-38. Second, the liner is often hard to remove without touching the interior portion that may contain dirt. *Id*. at 1:39-45. Finally, the odor from the trash may escape when the trash can is opened to remove the liner. *Id.* at 1:46-53. To solve these problems, the '316 Patent proposes improvements to the food pedal and handle mechanisms, along with an air freshener attached to the inner surface of the lid. *Id.* at 2:1-19.

The foot pedal, rather than extending outwards from the base, is placed partially within a recess in the base of the trash can, so that only part of the pedal extends beyond the periphery of the shell. *Id.* at 3:59-4:12. This reduces the kicking risk and further allows the pedal to be larger and closer to the ground, requiring less force to press. *Id.* at 4:2-41. Moreover, the handle mechanism includes a link strip with a hooked end that pulls the liner up from the trash can when the lid is open. *Id.* at 6:18-38. Last, the trash can includes an air freshener, such as a charcoal pad or ionizer box, in the inner surface of the lid. *Id.* at 6:38-7:6.

The parties dispute the following terms.

1. "the enclosing wall having a recess at its bottom end"

simplehuman's Proposed Construction	**iTouchless' Proposed Construction**	**Court's Construction**
No construction necessary, the plain and ordinary meaning should apply; to the extent the Court concludes a construction is necessary, it should be construed as follows: "**the enclosing wall having an indentation at its bottom end**"	This term is indefinite under 35 U.S.C. §112 ¶ 1 and ¶ 2. If amenable to construction, it should be construed as follows: "**the enclosing wall (metal enclosing wall) is set back to define an indentation or alcove at the lower portion**"	Plain and ordinary meaning

The term "the enclosing wall having a recess at its bottom end" appears in claim 1 of the '316 Patent. The claim recites a trash can assembly comprising "a shell having a top end and a

bottom end" with an enclosing wall that "defines a periphery" and that has "a recess at its bottom end." iTouchless argues that the claim is indefinite and lacks written description because the specification describes contradictory teachings. Namely, the specification states that "[a] toe-kick recess 36 is provided on the shell 22 *adjacent the base 38* of the shell" and then immediately states that "[a] toe-kick recess 36 *is part of the base 38*, and the shell 22 would define a curved cut-out to receive the recess 36." '316 Patent at 3:20-25. Because the recess cannot be both part of and adjacent to the base, iTouchless argues that the term is indefinite and lacks written description.

While recognizing that the specification lacks perfect clarity, the Court finds that the term is not indefinite. Indefiniteness occurs when the "claims, read in light of the specification . . . and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instr., Inc.*, 572 U.S. 898, 901 (2014). Here, the claims are reasonably certain: claim 1 requires the recess to be at the bottom end. Although the cited portions of the specification lack clarity, Figure 1 makes clear that the recess extends to *both* the base and the portion of the shell immediately above (and adjacent to) the base.[5] *See* '316 Patent at Fig. 1; *cf. id.* at 3:28-30. The prosecution history confirms that a plastic recess panel "is fitted in a recess provided at the bottom end of the shell." Dkt. No. 56-1 at 42. Accordingly, the claim term is not indefinite because it describes the bottom of the enclosing wall with reasonable certainty, while allowing the recess to extend to the areas above and adjacent to the bottom end.[6]

As to written description, a claim's compliance with the written description requirement is typically a question of fact not properly resolved on claim construction. *See Ariad Pharma., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). A party challenging written

[5] iTouchless also argues that a recess cannot be both part of the base and part of the bottom end of the enclosing wall. However, the base is defined as part of the shell, which makes it similar, if not identical, to the bottom end of the shell. *See* '316 Patent at 3:21, 3:37. (The "base" in the claims may refer to the plastic "skirt." *See id.* at 3:37-40.) iTouchless further argues that the enclosing wall cannot "have" a recess because the recess is defined by a plastic panel. *See id.* at 3:26-30. While imprecise, the specification is reasonably clear that the recess is part of the enclosing wall (i.e., the wall has a hole in it) even if the panel "defines" it.

[6] An alternative reading of the second sentence is that it uses "recess" to refer to the plastic recess panel while using "curved cut-out" for the indentation. *See* '316 Patent at 3:23-25 ("[T]he shell 22 would define a curved cut-out to receive the recess 36.") The recess panel would then be "part of" the base in the sense of being attached to it. *See id*. at 3:54-57.

description must show, by clear and convincing evidence, that the specification does not "reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Id*. at 1351, 1354. iTouchless has not met its burden here because it submits no evidence regarding whether a person of ordinary skill in the art would understand simplehuman to be in possession of this feature.

Last, iTouchless asks the Court, in the alternative, to clarify that the recess must be part of the metal enclosing wall, rather than part of the base or curved plastic panel that "defines" the recess. That argument assumes that those terms are mutually exclusive. They do not appear to be. The "base" appears to be another term for the "bottom end" of the shell, and the plastic panel is "fitted in the recess," and therefore "has" the recess as much as the wall. In any case, there does not appear to be a dispute that the recess is an "indentation" in the wall, since the parties agree on that aspect. The only dispute is whether the wall must be "set back" to form the indentation—iTouchless has not shown that the recess could not be formed through other means.

Accordingly, the Court resolves the parties' disputes by finding that the term "the enclosing wall having a recess at its bottom end" is not indefinite and has not been shown to lack written description. Otherwise, because the language of the term is "readily apparent even to lay judges" and juries, and because the parties agree that a recess is an "indentation in the enclosing wall," the Court adopts a plain and ordinary meaning construction. *See Phillips*, 415 F.3d at 1314.

2. "curved recess panel"

simplehuman's Proposed Construction	**iTouchless' Proposed Construction**	**Court's Construction**
No construction necessary, the plain and ordinary meaning should apply; to the extent the Court concludes a construction is necessary, it should be construed as follows: "**a curved panel that defines an indentation**"	"**a separate part or surface that is bent or formed in a continuous curve, arc or arch across the entire part or surface.**"	Plain and ordinary meaning

The term "curved recess panel" appears in claims 1 and 15 of the '316 Patent. Claim 1 recites "a curved recess panel, separate from the shell, that is fitted in the recess, the curved recess panel made of a non-metal material." Claim 15 similarly recites "a curved recess panel that is fitted in the enclosing wall adjacent to the bottom end of the shell, the curved recess panel made of a different material than the enclosing wall of the shell." iTouchless argues that the term should be clarified to require "a separate part or surface" that forms a "continuous curve, arc or arch across the entire part or surface." iTouchless relies on the embodiments shown in Figures 1 and 9, which show a traditional arch for the recess, as well as dictionary definitions of the terms "curve" and "panel."

The Court finds that no construction is necessary in this case. The term "curved recess panel" is straightforward and readily understandable by lay juries, so as to not require further clarification. *See Phillips*, 415 F.3d at 1314. With respect to the definition of "panel," there is no dispute that the panel is a separate part or surface, particularly since the claims already require the panel to be "separate from the shell." *See* '316 Patent at claims 1, 15. With respect to the term "curve," iTouchless has not shown that the curve must be "continuous . . . across the entire" panel. Although the preferred embodiments show a continuous curve, it is improper to limit the plain language of the claims to the preferred embodiment absent disclaimer or lexicography. *Acumed, Inc. v. Stryker Corp.*, 483 F.3d 800, 808 (Fed. Cir. 2007). Furthermore, iTouchless' dictionary definitions (which are extrinsic evidence) do not support its construction because they concern the noun "curve" (which may be different from a "curved" surface that may have multiple "curves") and only preclude "sharp breaks or angularity." *See* Dkt. Nos. 63-7, 63-8.

Accordingly, since iTouchless has not shown that the "curved recess panel" is limited to a single continuous curve, the Court adopts the plain and ordinary meaning construction, with the clarification that multiple curves may form a "curved" recess panel.

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3. "foot pedal partially positioned in the recess panel"

simplehuman's Proposed Construction	iTouchless' Proposed Construction	Court's Construction
No construction necessary, the plain and ordinary meaning should apply; to the extent the Court concludes a construction is necessary, it should be construed as: "**a foot pedal partially positioned within the limits of the curved panel that defines an indentation**"	This term is indefinite under 35 U.S.C. ¶ 1 and ¶ 2. If amenable to construction: "**to some extent, put in a place that is within the limits of a recess panel (separate surface)**"	Plain and ordinary meaning

The term "foot pedal partially positioned in the recess panel" appears in claims 1 and 15 of the '316 Patent. Both claims recite "a foot pedal partially positioned in the recess panel, with a portion of the foot pedal positioned inside the periphery of the shell." iTouchless argues that the term is indefinite and lacks written description because the specification shows the foot pedal below the recess panel, not "within" it (in the sense of being surrounded on multiple sides or "within the limits of" the panel).

This dispute is related to the one for the term "the enclosing wall having a recess at its bottom end." As explained above, the figures in the '316 Patent show a recess (indentation) in both the base and the shell adjacent to and above the base. '316 Patent at Fig. 1. However, the claims differ in what they require. Claim 1 requires the recess to be at the "bottom end" of the enclosing wall, while claim 15 requires a recess panel fitted in the enclosing wall "adjacent to the bottom end of the shell." The issue raised by iTouchless only arises in the latter scenario, where the recess panel is "adjacent to the bottom end of the shell," because Figure 3 suggests the foot pedal would be positioned below the panel in that scenario.

In either case, the claims are not indefinite. The language of the claims is clear and certain: the foot pedal must be within the limits of the recess panel. The parties do not dispute this requirement but, on the contrary, agree that "within" means "within the limits of." That the specification does not clearly show a foot pedal surrounded on all sides by the panel does not render the claims indefinite. *See Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1340 (Fed. Cir. 2014) (rejecting the argument that failure to disclose an element in the specification renders

claims indefinite where their plain meaning is otherwise clear). As to written description, the Court again finds the question not properly resolved at this stage. In particular, simplehuman argues that one of ordinary skill in the art would understand that once a person steps on the foot pedal in Figure 3, it would lift upwards to be in the confines of the recess panel. *See* '316 Patent at 3:20-23, 3:33-35, 5:18-35. iTouchless and its expert do not address these disclosures, which means that they have not shown lack of written description at this stage.

Accordingly, the Court resolves the parties' disputes by finding the term "foot pedal partially positioned in the recess panel" not indefinite and not shown to lack written description at this stage. Otherwise, because the parties agree that "in" means "within the limits of," and the term is otherwise clear and easy to understand, the Court adopts a plain and ordinary meaning construction.[7] *See Phillips*, 415 F.3d at 1314

4. "positioned inside the periphery of the shell"

simplehuman's Proposed Construction	**iTouchless' Proposed Construction**	**Court's Construction**
No construction necessary, the plain and ordinary meaning should apply.	"put in a place within the interior of the metal enclosing wall that defines the periphery"	Plain and ordinary meaning

The term "a portion of a foot pedal positioned inside the periphery of the shell" appears in claims 1 and 15 of the '316 Patent. iTouchless argues that lexicography limits the "periphery" to the "metal enclosing wall" because the claims state that "a metal enclosing wall . . . define[s] a periphery." simplehuman responds that the foot pedal does not need to be placed within the enclosing wall (i.e., within the shell), only within the "periphery" defined by the enclosing wall.

simplehuman has the better argument. Generally, it is improper to construe claims to read out or render meaningless any limitation. *See Aspex Eyewear, Inc. v. Marchon Eyewerar, Inc.*, 672 F.3d 1335, 1348 (Fed. Cir. 2012); *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006). Here, the claims state that the metal enclosing wall "defines" the periphery, which implies

[7] Although iTouchless includes additional language in its proposed construction, it does not argue for that construction in its brief. The Court does not consider the additional language ("to some extent," "put in a place") necessary to clarify the scope of the claims.

that the periphery means something other than the enclosing wall. iTouchless's attempt to equate the periphery and the enclosing wall is thus disfavored because it renders "define[] a periphery" meaningless. Nor is there lexicography in this case: the word "defines" does not suggest equivalence, but rather that one provides indication of the other (in the same way that a river may define a national boundary that extends into air space).

Ultimately, there is a heavy presumption that claims "mean what they say." *Johnson Worldwide Assoc., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999); *see InterDigital Commn's, LLC v. Int'l Trade Com'n*, 690 F.3d 1318, 1324 (Fed. Cir. 2012). Here, the claims are clear that the foot pedal need only be positioned within the periphery, not within the shell itself. For example, if a trash can has a particularly thick enclosing wall, the foot pedal may be "within the periphery" even if it never crosses the wall on the other side, so as to be within the interior of the shell. Figure 3 appears to show an arrangement of this sort, with a trash can that is entirely solid at its bottom. In that figure, the shell's "interior" is nowhere near the foot pedal, which is located within a recess of an enclosing wall that otherwise lacks an interior. *See* '316 Patent at Fig. 3, 4:13-15. The plain meaning of the claims is also consistent with the goal of the invention, which is to prevent a kicking hazard from an outwardly radiating foot pedal, not to require a particular internal arrangement. *See id.* at 1:58-61.

Accordingly, the Court rejects iTouchless' argument that "positioned inside the periphery of the shell" requires the foot pedal portion to be inside the interior of the shell or enclosing wall. Because the parties do not dispute any other aspect of the claims, and the term is otherwise clear and straightforward, the Court adopts a plain and ordinary meaning construction. *See Phillips*, 415 F.3d at 1314.

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5. "link assembly"

simplehuman's Proposed Construction	**iTouchless' Proposed Construction**	**Court's Construction**
This term is subject to § 112(6); it should be construed as follows: ***Function***: **coupling the foot pedal and the lid** ***Structure*: a horizontal rod and a vertical rod that are connected, and equivalents**	**"a collection of mechanical parts including a horizontal rod and a vertical rod fitted together to structurally connect the foot pedal to the lid. The horizontal rod has an Lshaped (i.e., at 90-degrees) terminal end that extends out of the horizontal plane of the rod, and which is positioned adjacent or on the foot pedal, and an opposing end that has an L-shaped leg (i.e., at 90 degrees) that also extends out of the horizontal plane of the rod and is secured to a generally L-shaped (i.e., 90-degree) plastic hinge."**	35 U.S.C. § 112 ¶ 6 applies Function: coupling the foot pedal and the lid Structure: link assembly 42 shown in Figs. 6A and 6B, including: horizontal rod 64, vertical rod 76, L-shaped terminal ends 78 and 82, plastic hinge 84, upper end 88, lower end 86, and block 90, and equivalents.[8]

The term "a link assembly coupling the foot pedal and the lid" appears in claims 1, 9, and 15 of the '316 Patent. The parties agree that "link assembly" is subject to 35 U.S.C. § 112 ¶ 6 (means plus function) and further agree that the function is "coupling the food pedal and the lid," as recited by the claims. However, they disagree on the corresponding structure.

Generally, section 112, paragraph 6 permits patentees to claim an element generically as "means" or "steps" for performing a function without the recital of any structure. *Id.* However, the "price to be paid" for such claiming is limitation of the claim to the structures disclosed in the specification and their equivalents. *O.I. Corp. v. Tekmar Co., Inc.*, 115 F.3d 1576, 1583 (Fed. Cir. 1997). Thus, the *quid pro quo* of section 112, paragraph 6 requires the patentee to disclose and link sufficient corresponding structure in the specification to perform the required function. *Chi. Bd. Options Exchange, Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1367 (Fed. Cir. 2012). A

[8] As noted by iTouchless, several of these structures form the same component. Namely, terminal ends 78 and 82 are merely the ends of the horizontal rod 64, while the ends 86 and 88 are the ends of the vertical rod. Thus, an alternative formulation for the structure is: horizontal rod 64, vertical rod 76, plastic hinge 84, and block 90, with links as described in 4:58-5:35.

"structure disclosed in the specification is corresponding structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id*. (quoting *Med. Instr. & Diag. Corp. v. Elekta AB*, 344 F.3d 1205, 1210 (Fed. Cir. 2003)). The purpose of this requirement is to prevent the patentee from claiming every possible means for achieving a function. *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1385 (Fed. Cir. 2009).

Here, the function of "coupling the foot pedal and the lid" is clearly linked to the structure of the link assembly 42, shown in Figure 6A and in Figures 2, 3, and 6B. *See* '316 Patent at 4:58-60 ("[T]he link assembly 42 operatively couples the foot pedal 40 to the lid 32 so that stepping on the foot pedal 40 will cause the lid 32 to open."), 2:7-9 ("a link assembly coupling the foot pedal and the lid"), abstract (same). The parties do not identify, and the Court has not found, any other part of the specification that links the required function with any structure.[9] Accordingly, the link assembly 42 is presumptively the corresponding structure for the "coupling" function. *See Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1097 (Fed. Cir. 2008) (affirming a construction of the corresponding structure based on an express link to performing the function in the specification); *MobileMedia Ideas LLC v. Apple Inc.*, 780 F.3d 1159, 1169-70 (Fed. Cir. 2015) (same). Figure 6A shows "an isolated perspective view of a link assembly," which presumably includes all the components of the link assembly. '316 Patent at 2:34-35.

simplehuman contends, however, that not all of these components are necessary to perform the "coupling" function. Section 112, paragraph 6 does not "permit incorporation of structure from the written description beyond that necessary to perform the claimed function." *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999); *see also Northrop*

[9] simplehuman claims that a vertical and horizontal rod are also linked to the function, but the cited portion of the specification refers to translation of movement, not to "coupling." *See id*. at 4:61-63 ("The link assembly 42 has a horizontal rod 64 and a vertical rod 76 that cooperate to translate an up-down pivot motion of the pedal 40 to an up-down pivot motion for the lid 32."). For purposes of this order, the Court assumes the ordinary meaning of "coupling" as attachment or connection. *See Bradford Co. v. Conteyor N. Am., Inc.*, 603 F.3d 1262, 1270 (Fed. Cir. 2010) (interpreting "coupled to" as attachment); *Johnson Worldwide*, 175 F.3d at 992 ("'[C]oupled' generically describes a connection.").

Grumman Corp. v. Intel Corp., 325 F.3d 1346, 1352 (Fed. Cir. 2003) ("[A] court may not import into the claim features that are unnecessary to perform the claimed function.").[10] For instance, limiting a screw to a particular diameter described for the preferred embodiment is improper. *Acromed Corp. v. Sofamor Danek Group, Inc.*, 253 F.3d 1371, 1382 (Fed. Cir. 2001). Similarly, structures that merely enable the performance of the required function, such as a connecting wire between two components that each perform the required function, should be excluded. *See Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1370-72 (Fed. Cir. 2001). *But see id.* at 1372 (finding that a connecting wire *is* necessary when the claimed function requires both components working as a "complex").

That said, where the specification describes components as actually performing a required function, the corresponding structure must include them. *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1119 (Fed. Cir. 2002). The rule that claims may not be limited to a preferred embodiment does not apply to means-plus-function terms. *See Mettler-Toledo, Inc. v. B-Tek Sales, LLC*, 671 F.3d 1291, 1296 (Fed. Cir. 2012). On the contrary, the statute expressly requires such claims to be limited to the structures disclosed in the specification and equivalents. *See* 35 U.S.C. § 112 ¶ 6. Thus, in *Mettler-Toledo*, the court limited corresponding structure to a "multiple slope integrating analog-to-digital (A/D) converter 100," even though a generic A/D converter could perform the same function, because the specification never linked a generic AD converter to that function. 671 F.3d at 1296. Similarly, in *Nomos Corp. v. Brainlab USA, Inc.*, the court limited "means for generating at least one ultrasound image" to an ultrasound probe that includes a fixation device because "the only embodiment of the invention" included a fixation

[10] *Micro Chemical* and *Northrop* both determined "necessity" based on the specification. In *Micro Chemical*, the court relied on alternative embodiments described in the specification to find that features of a preferred embodiment were not required. 194 F.3d at 1258-59. In *Northrop*, the corresponding structure was held to exclude elements that the specification described as separate from the means for performing the function. 325 F.3d at 1352. By contrast, in cases where the specification discloses only one embodiment linked to a function, the features of that embodiment are typically incorporated. *See, e.g., Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1304 (Fed. Cir. 2005) ("[B]ecause there is only embodiment described in the specification to secure the anchor to the bone—a polyaxial screw and anchor structure—there is no basis on which to extend the limitation to cover alternative, non-disclosed structure not shown to be structurally equivalent.").

device. 357 F.3d 1364, 1368 (Fed. Cir. 2004). In both of these cases (as well as most recent Federal Circuit law), the court does not conduct a searching inquiry into "necessity" but simply looks at the specification.

With these principles in mind, the inquiry here is whether the components of the link assembly 42 actually perform the function of "coupling the foot pedal to the lid" or are merely enabling or peripheral to it. The specification describes a link assembly having a vertical rod and horizontal rod coupled in a distinctive way to both each other and to the lid and foot pedal. As shown below,[11] the horizontal rod 64 has an L-shaped terminal 78 that supports the pedal using gravity. *See* '316 Patent at 4:64-5:4 ("[T]he pedal 40 can sit on top of the terminal end 78 via gravity."). Then, on the other end, the horizontal rod 64 is connected to the vertical rod using an L-shaped end and plastic hinge—the structure of which is significant because it allows the rotation of the horizontal rod 64 to lift the vertical rod 76. *See id*. at 5:4-12, 5:17-25. It is this "lifting" of the vertical rod due to rotation of the L-shaped plastic hinge that causes the lid to open. *Id*. at 5:25-27. Thus, the structure of the terminal ends of the horizontal rod is necessary not only to physically connect the components but to allow the foot pedal to open the lid.

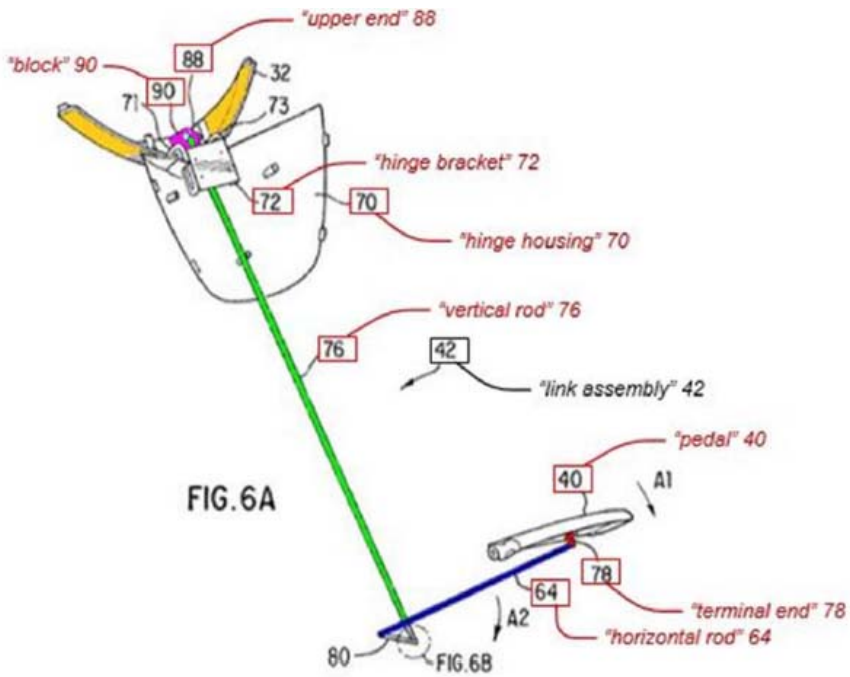

FIG.6A

[11] The figures are copied from the declaration of iTouchless' expert, Dr. Charles Reinholtz, and include his annotations. (Dkt. No 63-3 ("Reinholtz Decl.") at 11-12.)

Turning to the vertical rod, the terminal end 82 connects to the plastic hinge to allow the horizontal rod 64 to lift the vertical rod 76. *Id.* at 5:8-12. The vertical rod 76 extends through the hinge housing 70 and hinge bracket 72. *See id.* at 5:14-15, 4:42-57, Fig. 6C. The hinge structure does not appear to be necessary to connect the foot pedal to the lid. Instead, the vertical rod 76 extends past the housing to terminate in a hook end 88, as shown in Figure 6C, that attaches to a block 90 that is attached directly to the lid. *See id.* at 5:15-17. Then, when the vertical rod is raised, it pushes the lid up through block 90 to rotate it around the pivot 74. *Id.* at 5:24-26.

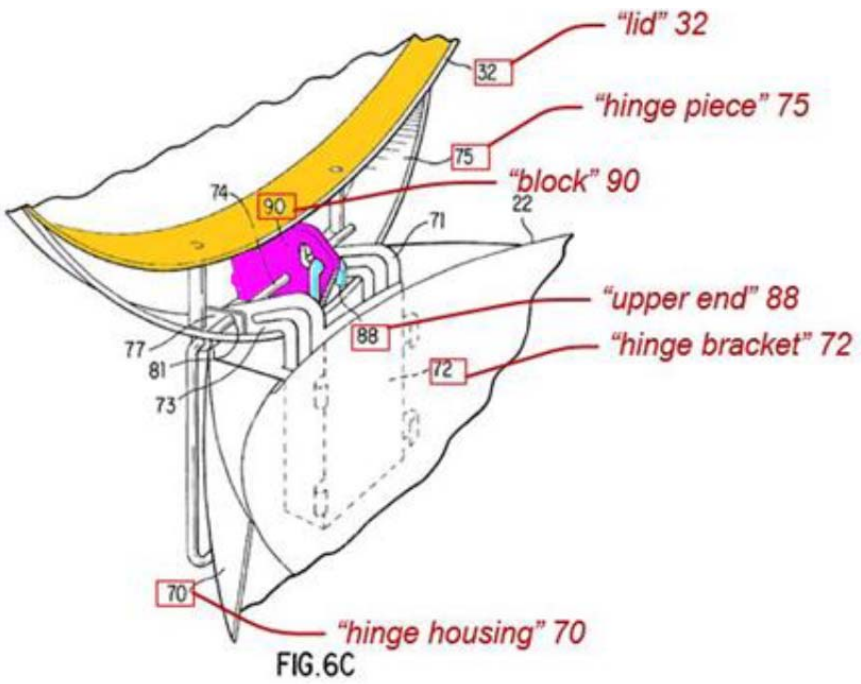

FIG.6C

Thus, the specification shows that the link assembly components that perform the function of coupling the lid to the food pedal include: (1) a horizontal rod with L-shaped ends, (2) an L-shaped plastic hinge attached to the horizontal and vertical rods as shown in Figure 6B, (3) a vertical rod attached to the plastic hinge and block 90, and (4) a block 90 attached directly to the lid and coupled to the vertical rod. simplehuman objects that only the vertical and horizontal rods are "necessary" and can be coupled in different ways. That may be so, but the specification never states that generically coupled vertical and horizontal rods can perform the function of coupling the lid and foot pedal. There is therefore no "link" to the function and no basis to incorporate such generic components into the corresponding structure. *See Mettler-Toledo*, 671 F.3d at 1296 ("Our

case law is clear that a means-plus-function claim limitation is limited to the structures disclosed in the specification and equivalents."); *Cross Med. Prods.*, 424 F.3d at 1304 (finding "no basis" to "extend the limitation to cover alternative, non-disclosed structure not shown to be structurally equivalent"); *MobileMedia*, 780 F.3d at 1170 (rejecting attempt to expand "means for processing and storing" to any processor and memory where the specification only links a processor and memory located in a camera).[12]

iTouchless, on the other hand, seeks to incorporate additional components, including supporting ribs 60 and 62 with protruding notches that hold the horizontal rod in place.[13] '316 Patent at 4:64-65. Dr. Reinholtz appears to suggest that the structure should include the shell of the trash can. Reinholtz Decl. ¶ 16. The Court finds that these additional components are not properly included in the corresponding structure because the specification never describes them as performing a "coupling" function or as being part of the link assembly. At most, they perform supporting functions that enable the link assembly to perform coupling—which is not enough to make them part of the corresponding structure. *See Asyst*, 268 F.3d at 1371 ("An electrical outlet enables a toaster to work, but the outlet is not for that reason considered part of the toaster.").

Accordingly, the Court construes the corresponding structure for the means-plus-function term "link assembly" to be the link assembly 42 shown in Figures 6A and 6B, including the following components: horizontal rod 64, vertical rod 76, L-shaped terminal ends 78 and 82, plastic hinge 84, lower end 86, upper end 88, and block 90; and equivalents.

III. CONCLUSION

For the foregoing reasons, the Court **ADOPTS** the above-stated constructions. The Court **SETS** a further case management conference for January 5, 2021, at 2:00 p.m. The parties shall

[12] simplehuman also argues that the additional components perform other functions. That, however, is not relevant to the analysis. *See MobileMedia*, 780 F.3d at 1170 ("[T]he fact that 'a structure may perform two functions . . .' is *irrelevant* in the context of a § 112, paragraph 6 analysis" (emphasis in original) (citation omitted)).

[13] iTouchless' proposed construction is not entirely clear because it includes different components in its brief, chart, and expert declaration. For example, the construction shown in the chart of its brief does not include block 90 or supporting ribs 60 and 62.

file a joint case management statement proposing a schedule for the remainder of the case, including trial, by December 22, 2020.

IT IS SO ORDERED.

Dated: 12/14/2020

HAYWOOD S. GILLIAM, JR.
United States District Judge