

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TELEBRANDS CORP.,
Petitioner,

v.

RAGNER TECHNOLOGY CORPORATION,
Patent Owner.

Case PGR2016-00026
Patent 9,182,057 B2

Before MICHAEL W. KIM, TREVOR M. JEFFERSON, and
KEVIN W. CHERRY, *Administrative Patent Judges*.

KIM, *Administrative Patent Judge*.

DECISION
Denying Institution of Post-Grant Review
37 C.F.R. § 42.208

I. INTRODUCTION

Telebrands Corp. (“Petitioner”) filed a Petition (“Pet.”) for post-grant review of claims 1–25 of U.S. Patent No. 9,182,057 B2 (“the ’057 patent”) (Ex. 1001) pursuant to 35 U.S.C. §§ 321–329. Paper 1. Ragner Technology Corporation (“Patent Owner”) filed a Preliminary Response. Paper 6; “Prelim. Resp.” We have jurisdiction under 35 U.S.C. § 324, which provides that a post-grant review

may be instituted only if “the information presented in the petition . . . demonstrate[s] that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.”

Petitioner challenges the patentability of claims 1–25 of the ’057 patent under 35 U.S.C. §§ 112 and 103. After considering the Petition and the Preliminary Response, as well as all supporting evidence, we determine that the Petition does not demonstrate that it is more likely than not that Petitioner would prevail in showing that claims 1–25 are unpatentable. Accordingly, we do not institute a post-grant review on any claim or ground.

A. The ’057 patent

The ’057 patent relates generally to hoses or conduits that extend lengthwise when pressurized, and retract lengthwise when internal pressure is removed. Ex. 1001, 1:15–17. According to the ’057 patent, extendable and retractable hoses include both spring biased and elastic biased hoses. Ex. 1001, 1:23–25. Some prior art designs identified by the ’057 patent include two connector ends with an inner elastic tube and an inelastic outer cover. Ex. 1001, 1:25–27. By contrast, the ’057 patent purports to have elastic extendable and retractable hoses 30, 40, and 50 (bungee hoses) which can comprise a bungee like outer cover 36 to provide greater extension ratios, better environmental wear resistance (i.e. friction with ground) and/or lower stresses between inner elastic tubes 34 and 44, and outer cover 36. Ex. 1001, 1:49–54. More specifically, unlike prior art outer cover 26, which defines a maximum length and a maximum width (diameter), the disclosed outer cover 36 can extend and contract lengthwise (longitudinally), and also expand and contract width-wise (radially). Ex. 1001, 1:54–58.

B. Related Matters

Petitioner and Patent Owner identify the following related district court proceeding: *Telebrands Corp. v. Ragner Technology Corp. and Tristar Products, Inc.*, No. 2:16-cv-03474 (D.N.J.); *Blue Gentian, LLC et al. v. Tristar Products, Inc. et al.*, Civil Action No. 1:13-cv-01758 (D.N.J.). Pet. 2–3; Paper 5, 2.

C. Illustrative Claim

Claims 1–25 are pending and challenged, of which claims 1, 13, 18, and 21–23 are independent. Independent claim 18, which is representative, is reproduced below:

18. A retractable hose having a first end and a second end, the retractable hose comprising:

a) an inner elastic hose capable of stretching to at least three times its natural length and having a tendency to return to its natural length when stretched;

b) a tube shaped outer cover adapted to longitudinally extend from a retracted length to an extended length in response to a pressure differential between fluid within the inner elastic hose and an ambient environment at lower pressure than the fluid within the inner elastic hose;

c) a middle cover disposed between the elastic inner hose and the outer cover;

d) an input connector disposed at the first end of the retractable hose and designed to be removably attached to a source of pressurized fluid; and

e) a device disposed at the second end of the retractable hose, wherein the device disposed at the second end of the retractable hose is:

i) a flow restricting device; and/or

ii) an output connector designed to removably connect to an external flow restricting device; wherein:

A) the inner elastic hose is disposed inside the outer cover;

B) the outer cover is adapted to respond to an external stretching force applied when the outer cover is at the extended length by:

I) longitudinally extending to a stretched length beyond the extended length; and

II) radially contracting to a stretched diameter smaller than an extended diameter, wherein the extended diameter is the outer cover's diameter when the outer cover is at the extended length.

D. The Alleged Grounds of Unpatentability

The information presented in the Petition sets forth Petitioner's contentions of unpatentability of claims 1–25 of the '057 patent based on the following specific grounds (Pet. 21–57):

References	Basis	Challenged Claims
	§ 112(b) ¹	1–25
Berardi ² and Gladfelter ³	§ 102	1–4, 7, 10–11, 23, and 24

¹ We acknowledge that Petitioner literally argues that claims 1–25 are both indefinite **and** non-enabled. Pet. 21–29. Indefiniteness and non-enablement, however, are separate grounds of unpatentability, set forth in separate statutes, and each involve consideration of different factors requiring different analyses. In the Petition, Petitioner sets forth a single analysis treating indefiniteness and non-enablement as one and the same. This is in error. In particular, an evaluation concerning enablement is usually set forth with a discussion of factors articulated in *In re Wands*, 858 F.2d 731 (Fed. Cir. 1988). Petitioner has not identified *Wands* and, indeed, every case law citation concerning “indefinite and non-enabled” actually only concerns indefiniteness alone. For those reasons, we address Petitioner's assertions only within the framework of indefiniteness.

² U.S. Patent No. 8,291,941 B1 to Michael Berardi, issued Oct. 23, 2012 (Ex. 1002).

³ U.S. Patent No. 5,197,370 to Harry F. Gladfelter, issued Mar. 30, 1993 (Ex. 1003).

Petitioner also cites the Declaration of Dr. Ken Kamrin (Ex. 1005; “the Kamrin Dec.”).

E. Eligibility of Patent for Post-Grant Review

The post-grant review provisions of the Leahy-Smith America Invents Act (“AIA”)⁴ apply only to patents subject to the first inventor to file provisions of the AIA. AIA § 6(f)(2)(A). Specifically, the first inventor to file provisions apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time a claim to a claimed invention that has an effective filing date on or after March 16, 2013. AIA § 3(n)(1). Furthermore, “[a] petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be).” 35 U.S.C. § 321(c); *see also* 37 C.F.R. § 42.202(a).

Petitioner asserts that the ’057 patent is a first-to-file patent, and indicates that the earliest possible effective date of the ’057 patent is August 10, 2013. Pet. 1. Petitioner asserts further that the instant Petition is being filed within nine months of the November 10, 2015 issue date of the ’057 patent. Pet. 4–5. On this record, we agree with Petitioner.

II. ANALYSIS

We turn now to Petitioner’s asserted grounds of unpatentability to determine whether Petitioner has met the threshold standard, under 35 U.S.C. § 324(a), for instituting review.

A. Claim Construction

As a step in our analysis for determining whether to institute a review, we determine the meaning of the claims for purposes of this Decision. In a post-grant

⁴ Pub L. No. 112-29, 125 Stat. 284 (2011).

review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.

37 C.F.R. § 42.200(b); *see also* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). However, a “claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history.” *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). We construe the terms below in accordance with these principles.

1. “*extended length*”

Each of independent claims 1, 13, 18, and 21–23 recite an outer cover with an “extended length.” Petitioner asserts that the ’057 patent defines “extended length” as “the length the hose or those components extend to when the hose [is] pressurized with a fluid and no extension forces are applied other than fluid pressure.” Pet. 19 (citing Ex. 1001, 6:48–52). Patent Owner agrees with this definition. Prelim. Rep. 11 (citing Ex. 1001, 6:48–52, 10:48–67). We are persuaded that the definition identified by the parties is correct. Accordingly, we construe “extended length” as “the length the hose or those components extend to when the hose is pressurized with a fluid and no extension forces are applied other than fluid pressure.”

2. *Other Claim Terms*

We determine that it is unnecessary to construe expressly other claim terms at this time.

B. Person of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art at the time of the effective filing date of the '057 patent “would have been a person having general knowledge about and experience with the manufacture and/or use of hoses and with fluid mechanics and materials science as they relate to hoses and how hoses work generally. The person of ordinary skill has at least an associate’s degree in science or engineering.” Pet. 17 (citing Ex. 1005). Patent Owner does not challenge Petitioner’s assertion. On these facts, we determine that Petitioner’s articulation of a person of ordinary skill in the art is credible.

C. Claims 1–25 as Indefinite

Petitioner contends that claims 1–25 are indefinite under 35 U.S.C. § 112(b). Pet. 21–29 (citing Exs. 1001, 1005). Patent Owner disagrees. Prelim. Resp. 14–40 (citing Exs. 1001, 1005, 2001). Claims 1, 13, 18, and 21–23 are independent.

1. Relevant Law

In any patent, “[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.” 35 U.S.C. § 112(b) (2013). “A decision on whether a claim is indefinite . . . requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification.” MPEP 2173.02. “The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art.” *Interval Licensing, LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

2. Relevant Defined Terms from the '057 Patent

FULLY RETRACTED LENGTH or Retracted Length--this should be understood as, for a Bungee hose (retractable hose) and the

components disposed along its length (e.g., outer cover 36, inner elastic tube 34, etc.) the length of the hose or those components when they are fully retracted (i.e., when there is substantially no fluid pressure within its elastic tube and a minimal amount of external tension on the bungee hose itself).

Ex. 1001, 6:40–47.

EXTENDED LENGTH--this should be understood as, for a retractable hose and the components disposed along its length, the length the hose or those components extend to when the hose is pressurized with a fluid and no extension forces are applied other than fluid pressure.”

Ex. 1001, 6:48–52.

FULLY EXTENDED LENGTH--this should be understood as, for a retractable hose and the components disposed along its length, the length to which the hose or components return when (1) an external pressure which stretched the hose to its Maximum Stretched Length (defined infra) has been removed and (2) there is a differential between ambient pressure and pressure for fluid inside the hose sufficient to extend the hose at its extended length. In general, the Fully Extended Length for a given hose or component will be greater than the Extended Length for that same hose or component, due to resistance exerted by the components of the hose to fully returning to the Extended Length. The differential between Fully Extended Length and Extended Length for any particular hose will largely be based on the friction between the components making up the hose. For lubricated hoses the Fully Extended Length might only be a few percent longer than the Extended Length, while for non-lubricated hoses, the Fully Extended Length might be up to fifteen percent (or more) longer than the Extended Length.

Ex. 1001, 6:52–7:4.

MAXIMUM STRETCHED LENGTH--this should be understood as, for a retractable hose and the components disposed along its length, the length of the hose (or components) when the hose has reached the approximate maximum length to which it can safely be stretched. In most cases this is significantly beyond the Fully Extended Length of the bungee hose (e.g., the Maximum Stretched Length could

exceed the Extended Length by 25% or more, while the Fully Extended Length will generally only be 10-15% longer than the Extended Length). For example, in a recent bungee hose prototype, the prototype bungee hose had a Fully Retracted Length of four feet, and would grow to approximately twelve feet from water pressure alone (its Extended Length). After the user pulled on the end of the prototype hose and released it, the prototype bungee hose would maintain a length slightly over thirteen feet (its Fully Extended Length). However, the user could then pull on the end of the bungee hose and stretch it out to twenty feet using about two-hundred Newton (forty-five pounds) of force (tension). This might be considered its Maximum Stretched Length, since greater tension could cause the hose to exert a retractive force which could be high enough to be unsafe for the user, even though the breaking strength of the prototype hose's outer cover was over 2,000 Newton (approximately five-hundred pounds) and more force could be applied to lengthen the hose slightly further. However, application of tension force beyond two-hundred Newton will only slightly further increase the length of the hose and is thus a reasonable force to create a maximum stretched length.

Ex. 1001, 7:5–33.

3. *Analysis*

Independent claims 1, 18, and 23 each recite, among other things, “an external stretching force applied when the outer cover is at the extended length by: I) longitudinally extending to a stretched length beyond the extended length.” Independent claims 13, 21 and 22 each recite, among other things, “stretching the retractable hose from the extended length to a stretched length by exerting a pulling force on the retractable hose when it is at its extended length.” From these claim limitations, Petitioner asserts that the following pairs of related terms are indefinite: (1) “external stretching force” and “stretched length” for independent claims 1, 18, and 23; and (2) “pulling force” and “stretched length” for independent claims 13, 21, and 22. Specifically, Petitioner asserts that these claim terms are “purely subjective to a particular individual purportedly practicing the

invention.” Pet. 23. Patent Owner asserts, essentially, that the key claim term is “stretched length,” and that “stretched length” is a relative term that is sufficiently definite for the purposes of 35 U.S.C. §112. Patent Owner argues further that given the definiteness of “stretched length,” the definiteness of the related terms “external stretching force” and “pulling force” is no longer in doubt. We agree with Patent Owner.

We begin with our analysis of “stretched length.” As set forth above, the ’057 patent defines the following relevant claim terms: “extended length” and “maximum stretched length.” Petitioner does not dispute that these claim terms are defined expressly by the ’057 patent, nor does Petitioner indicate that these claim terms are indefinite. Next, each independent claim recites expressly that the “stretched length” is longer than the “extended length,” which we construed above as “the length the hose or those components extend to when the hose is pressurized with a fluid and no extension forces are applied other than fluid pressure.” Finally, the term “maximum stretched length,” both by the use of the word “maximum” and the express definition set forth in the ’057 patent, indicates that it constitutes an upper bound for the term “stretched length.” Accordingly, through transitive analysis, we determine that the recited term “stretched length” is a relative length intermediate the explicitly defined terms “extended length” and “maximum stretched length.” Relative claim terminology is acceptable if one of ordinary skill would have understood what is claimed, in light of the Specification. *Seattle Box Co., Inc. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984).

Our analysis of “external stretching force” and “pulling force” is less complicated, in that the claims and Specification delineate a difference between pressure related to fluid and all other forces. For example, independent claim 18 recites “a pressure differential between fluid within the inner elastic hose and an

ambient environment at lower pressure than the fluid within the inner elastic hose” and “external stretching force.” Two distinct claim elements should each be given full effect. *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1563 (Fed. Cir. 1991). The Specification supports this distinction, for example, when disclosing the following: “there is substantially no **fluid pressure** within its elastic tube and a minimal amount of **external tension** on the bungee hose itself.” Ex. 1001, 6:44–47 (emphases added); *see also* Ex. 1001, 6:51–52, 56–60, 7:17–33. Accordingly, based on the above, as well as the other portions of the ’057 identified by Patent Owner, we discern that the claim terms “external stretching force” and “pulling force” refer to any force other than pressure related to fluid. Some other examples of such forces identified in the aforementioned portions of the Specification include “external forces” and “tension force.”

Petitioner asserts that “external stretching force” and “pulling force” are indefinite, because the claims and Specification are vague as to how much force is necessary, for example, to stretch an outer cover to “a stretched length beyond the extended length.” More specifically, Petitioner asserts that such a determination depends on a myriad of factors, such as “the materials from which the components of the hose are constructed and the relative dimensions and arrangement of those components,” and without those factors specified, determining the magnitude of the aforementioned force is impossible. We disagree. As set forth above, Petitioner asserts, and we agree, that one of ordinary skill in the art at the time of the invention would have had the following background: “general knowledge about and experience with the manufacture and/or use of hoses and with fluid mechanics and materials science as they relate to hoses and how hoses work generally. The person of ordinary skill has at least an associate’s degree in science or engineering.” Given that level of skill, we are unpersuaded that one of ordinary

skill would not have been able to account adequately for the aforementioned factors, namely, materials, relative component dimensions, and relative arrangements of the components, in determining “extended length” and “maximum stretched length,” terms that Petitioner admits are “defined and recited in the claims.” Pet. 26. Simply put, we are unclear as to what one of ordinary skill in the art of “hoses” would be familiar with, if not materials, relative component dimensions, and relative arrangements of the components of those hoses. And given that “extended length” and “maximum stretched length” are sufficiently defined, we are unpersuaded that these explicitly defined terms do not provide sufficient objective boundaries for determining “stretched length,” given that “stretched length” is merely a relative length intermediate those two sufficiently defined terms. And with those boundaries in place for “stretched length,” we are unpersuaded that one of ordinary skill would not have been able to ascertain the “external stretching force” and “pulling force” needed to obtain that “stretched length,” given the above guidance from the claims and Specification.

To be sure, the above determinations appear to render relatively broad these claim terms, in that, as asserted by Petitioner, it may encompass the scenario of “if the magnitude of the force applied or exerted when pulling on the retractable hose is too small, the hose might stretch only minimally.” Pet. 27. Breadth, however, is not indefiniteness. *In re Miller*, 441 F.2d 689, 693, (CCPA 1971). Indeed, the fact that a small force will only result in a minimal stretching of the hose is actually an acknowledgement that even the small force could have been, in fact, accounted for by one of ordinary skill, which weighs against Petitioner’s overall contentions.

Relatedly, Petitioner asserts there is some ambiguity, in that even if “stretched length” is a relative length intermediate “extended length” and “maximum stretched length,” that the Specification also defines “fully extended

length,” and that it is unclear as to the relationship between “stretched length” and “fully extended length.” Pet. 23–25. Petitioner’s assertions are misplaced, in that we are unpersuaded every permutation must be accounted for in order to make a determination that a certain claim term is sufficiently definite, so long as objective boundaries for the claim limitation have been provided. We are persuaded those objective boundaries have been provided for “stretched length,” for the reasons set forth above.

Moreover, after considering the relevant portions of the ’057 patent, we discern that “extended length” and “fully extended length” each refer to lengths that are solely the result of fluid pressure, with the only substantive difference being that the hose with the “fully extended length” had been stretched immediately prior, whereas the hose with the “extended length” had not. Due to these differences, “fully extended length” is longer than “extended length,” but “stretched length” is only construed as being longer than “extended length.” Nevertheless, while there then would logically appear to be a length longer than “extended length” but less than “fully extended length” that would correspond properly with “stretched length,” we are unpersuaded that the fact that a certain length meets both “fully extended length” and “stretched length” indicates that “stretched length” is indefinite.

Petitioner asserts further that “external stretching force,” “pulling force,” and “stretched length” are indefinite because the standard for determining these claims terms is subjective. Pet. 26–27. We disagree. Subjectivity intimates that when evaluating the same set of facts, two different individuals will come to differing conclusions. Here, however, we have explicitly defined the terms “extended length” and “maximum stretched length,” with no indications that two different individuals, each possessing ordinary skill, would not have come to the same

calculations as to the “extended length” and “maximum stretched length” of a particular hose. Consequently, given that baseline, we are unpersuaded that those same two individuals would not have converged on the same calculation for the “stretched length” for that very same hose, again, when the “stretched length” is merely a length intermediate “extended length” and “maximum stretched length.” A similar analysis is applicable to the recited “external stretching force” and “pulling force” related to the recited “stretched length.”

Petitioner asserts additionally that the ’057 patent only refers to an external stretching force applied to an entire hose, while independent claims 1, 18, and 23 only refer to an outer cover of a hose responding to such an external stretching force, supporting further their contentions that “external stretching force” and “pulling force” are indefinite. Pet. 27–29. Insofar as Petitioner is asserting that independent claims 1, 18, and 23 do not have written description support, Petitioner’s assertions are misplaced, as written description is separate from definiteness, and even enablement. Furthermore, we are unpersuaded that one of ordinary skill, as defined above, who had the ability to evaluate an external stretching force applied to an entire hose, would have been unable to perform that same evaluation for an external stretching force applied to only a subset, i.e., the outer cover, of that same hose, especially given the guidance set forth in the above-cited portions of the claims and Specification.

Petitioner cites paragraphs 27–31 of Dr. Kamrin’s Declaration in support of their assertions concerning “external stretching force,” “pulling force,” and “stretched length.” Those paragraphs largely mirror Petitioner’s assertions, and, thus, are unpersuasive for the same reasons as set forth above.

4. Conclusion

For the foregoing reasons, we determine that the Petition does not demonstrate sufficiently that it is more likely than not that Petitioner would prevail in showing that claims 1–25 are unpatentable on this ground.

D. Claims 1–4, 7, 10, 11, 23, and 24 as Obvious over Berardi and Gladfelter

Petitioner contends that claims 1–4, 7, 10, 11, 23, and 24 are obvious over Berardi and Gladfelter. Pet. 29–57 (citing Exs. 1002–1006). Patent Owner disagrees. Prelim. Resp. 41–73 (citing Exs. 1001–1003, 1005–1007, 2001–2003). Claims 1 and 23 are independent.

1. Berardi (Ex. 1002)

Berardi discloses a hose for carrying fluid materials. Ex. 1002, 1:5–6.

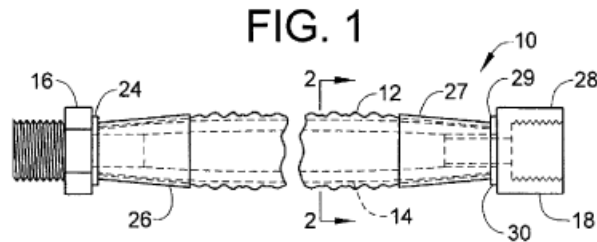


Figure 1 is a longitudinal side view of a hose in a contracted position.

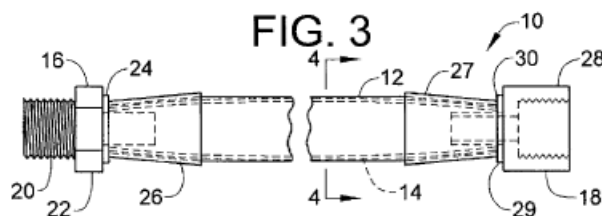


Figure 1 is a longitudinal side view of a hose in an expanded position.

Hose 10 is composed of two separate and distinct outer tube 12 and inner tube 14. Ex. 1002, 7:27–28. Inner tube 14 is formed from a material that is elastic with an elongation ratio up to 6 to 1 and can expand up to 4 to 6 times a relaxed or

unexpanded length, such as natural latex rubber. Ex. 1002, 7:28–33. Outer tube 12 is formed from a non-elastic, relatively soft, bendable, tubular webbing material, such as braided or woven nylon, polyester, or polypropylene. Ex. 1002, 7:39–40. The radial expansion of inner tube 14 is constrained by the maximum diameter of non-elastic outer tube 12. Ex. 1002, 7:37–39.

2. *Gladfelter (Ex. 1003)*

Gladfelter discloses braided tubular sleeving which can be placed over various substrates, such as wire bundles, pipes, conduits, electrical cables, air hoses, and the like. Ex. 1003, 1:10–15. The sleeving material has an open weave construction which enables the braided tube to expand up to three times its original diameter when the braided tube is axially compressed. Ex. 1003, 1:46–49. The sleeving material has a first position when it is longitudinally compressed and radially expanded, and a second position when it is longitudinally extended and radially compressed. Ex. 1003, 5:13–27.

3. *Analysis*

Based on the information presented in the Petition and Preliminary Response, as well as all supporting evidence, we determine that the Petition does not demonstrate that it is more likely than not that Petitioner would prevail in showing that claims 1–4, 7, 10, 11, 23, and 24 are unpatentable on this ground. In particular, we are unpersuaded that Petitioner has shown sufficiently that a combination of Berardi and Gladfelter discloses or suggests “the outer cover is adapted to respond to an external stretching force applied when the outer cover is at the extended length by: I) longitudinally extending to a stretched length beyond the extended length,” as recited in each of independent claims 1 and 23, the only independent claims challenged on this ground.

Petitioner cites portions of Berardi and Gladfelter as corresponding to the aforementioned “outer cover.” Pet. 36, 38–39, 45–46 (citing Ex. 1002, 7:24–27, 8:41–42, 10:58–62, 12:10–14; Ex. 1003, 1:46–49, 5:13–25; Ex. 1005 ¶¶ 36–38; Ex. 1006, 2–4). Patent Owner, essentially, asserts that Petitioner has not shown adequately how the cited portions of Berardi and Gladfelter disclose or suggest an “outer cover” with “a stretched length beyond the extended length.” Prelim. Resp. 49–53. We agree with Patent Owner.

As set forth above, we construe “extended length” as “the length the hose or those components extend to when the hose is pressurized with a fluid and no extension forces are applied other than fluid pressure,” and also determined that “stretched length” is a relative length intermediate the explicitly defined terms “extended length” and “maximum stretched length.” When considered in the aggregate, we see that “extended length” is a length of a hose attributable to only fluid pressure, while “stretched length” is a length of a hose attributable to any force other than fluid pressure. Accordingly, a discussion of the prior art must acknowledge the interplay between the length of the hose, fluid pressure, and other forces, in order to meet the aforementioned claim limitation.

In their claim chart, Petitioner first cites various portions of Berardi as corresponding to the recited “outer cover” with “a stretched length beyond the extended length.” See Pet. 3638 (identifying the following without further explanation or analysis: “Exhibit 1002 at col. 7, lines 24–27, col. 8, lines 41–42, col. 10, lines 58–62 & col. 12, lines 10–14 in view of Exhibit 1003 at col. 1, lines 46–49 & col. 5, lines 13–25; Exhibit 1005 ¶¶ 36–38; Exhibit 1006 at 2–4.”). Those portions of Berardi, however, only disclose non-elastic outer tube 12, and “[s]ince the outer tube 12 will not expand laterally or longitudinally, the actual length and width of the outer tube 12 determines the maximum length and

maximum width of the hose 10 in its expanded condition. Thus, the diameter and length of the outer tube 12 determines the diameter and length of the hose . . . upon application of fluid pressure to the interior of the elastic inner tube 14.” Ex. 1002, 8:1–57; *see also* Ex. 1002, 8:57–60 (“This diameter and length of the non-elastic outer tube is the final diameter and the final length of the hose 10 when it is in its expanded condition and in use to transport of deliver a fluid.”). In view of the above, Patent Owner asserts, and we agree, that this maximum/final length and width of non-elastic outer tube 12 only involves fluid pressure, and, thus, corresponds, at best, to an “extended length,” and not “a stretched length beyond the extended length,” as required by each of independent claims 1 and 23. Indeed, in the non-claim chart analysis portion for these claim limitations, Petitioner does not refer to Berardi at all. *See* Pet. 44–48.

Petitioner next cites the following disclosure of Gladfelter as corresponding to the recited “outer cover” with a “stretched length beyond the extended length”: “[T]he sleeving material has an open weave construction which enables the braided tube to expand up to three times its original diameter when the braided tube is axially compressed.” Ex. 1003, 1:46–49. As an initial matter, this disclosure of Gladfelter discloses, if anything, an extended **width** and not an “extended length,” for it is the diameter that is expanded, and not the axial length. Of course, Gladfelter also discloses an opposing configuration where the diameter is compressed and the axial length is extended. Ex. 1003, 5:23–25. The above-cited portions of Gladfelter, however, do not disclose **how** the sleeving material is expanded/compressed axially/radially. Without such a disclosure, in particular, whether any expansion/compression is or is not the result of fluid pressure, we agree with Patent Owner that Gladfelter alone cannot be shown as accounting

adequately for both an “extended length” and “a stretched length beyond the extended length,” as required by each of independent claims 1 and 23.

Petitioner then cites paragraphs 36–38 of Dr. Kamrin’s Declaration for the proposition that “the braided tubular sleeving of Gladfelter is stretched from the retracted or longitudinally compressed length to the unstretched, expanded length to the fully expanded or longitudinally extended length.” Ex. 1005 ¶ 37; *see also* Pet 36. Missing, again, however, is a discussion concerning the relationship between any “stretching” in Gladfelter and fluid pressure/other forces.

While not set forth expressly in the Petition, Petitioner may be relying on Berardi for hose length based on fluid pressure, and Gladfelter for any hose “stretching” based on any non-fluid forces. Even if that was Petitioner’s intention, however, we are unpersuaded that Petitioner’s citations to Berardi and Gladfelter individually are sufficient to disclose or suggest the recited “outer cover” with “a stretched length beyond the extended length,” for the reasons set forth above. Furthermore, Petitioner has not provided any analysis concerning any interplay between Berardi and Gladfelter in that regard, which is especially important here, as Petitioner needed to explain, whether in view of inherency or other bases, how any hose “stretching” based on any non-fluid forces in Gladfelter would have been in excess of that for hose length based on fluid pressure in Berardi, in order to meet the recited “outer cover” with “a stretched length beyond the extended length.”

Dependent claims 2–4, 7, 10, 11, and 24 each depend from one of independent claims 1 and 23, and the additional analysis provided by Petitioner for those dependent claims do not remedy the aforementioned deficiency identified with respect to independent claims 1 and 23.

4. *Conclusion*

For the foregoing reasons, we determine that the Petition does not demonstrate sufficiently that it is more likely than not that Petitioner would prevail in showing that claims 1–4, 7, 10, 11, 23, and 24 are unpatentable on this ground.

E. *Conclusion*

On this record, we determine that the Petition does not demonstrate that it is more likely than not that Petitioner would prevail in showing that claims 1–25 are unpatentable.

III. ORDER

After due consideration of the record before us, and for the foregoing reasons, it is ORDERED that no trial is instituted.

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