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### UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE PATENT TRIAL AND APPEAL BOARD

COOK GROUP INCORPORATED and COOK MEDICAL LLC, Petitioner,

V.

BOSTON SCIENTIFIC SCIMED, INC., Patent Owner.

Case IPR2017-00435 Patent 9,271,731 B2

Before JAMES T. MOORE, JAMES A. TARTAL, and ROBERT L. KINDER, *Administrative Patent Judges*.

KINDER, Administrative Patent Judge.

DECISION
Instituting *Inter Partes* Review
37 C.F.R. § 42.108

Cook Group Incorporated and Cook Medical LLC ("Petitioner") filed a Petition (Paper 1, "Pet.") to institute an *inter partes* review of claims 1–20 of U.S. Patent No. 9,271,731 B2 (Ex. 1033, "the '731 patent"). Boston Scientific Scimed, Incorporated ("Patent Owner") filed a Preliminary Response (Paper 7, "Prelim. Resp.").

Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we institute an *inter partes* review of claims 1–4, 6–18, and 20 based on the grounds identified in the Order section of this Decision. We do not institute review of claims 5 and 19.

### I. BACKGROUND

### A. The '731 Patent (Ex. 1033)

The '731 patent is titled "Device and Method for Through the Scope Endoscopic Hemostatic Clipping," and claims an apparatus and method for capturing tissue. Ex. 1033, [54], 15:36–17:15. The claimed "invention relates to compression clips, and more specifically, to compression clips used to cause hemostasis of blood vessels located along the gastrointestinal tract delivered to a target site through an endoscope." *Id.* at 1:24–27. As explained by the '731 patent, the clips stop internal bleeding by clamping together the edge of a wound to achieve "hemostasis." *Id.* at 2:62–66. Embodiments of the invention include "a clip" with "clip arms," and a "control wire" for moving the clip between open and closed configurations. *Id.* at 16:24–42. In addition, the medical device claims describe an "opening element" for urging the clip arms into the open configuration, and the method claim describes use of the control wire to "move the first and second

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clip arms away from one another to the open tissue receiving configuration." *Id.* at 15:37–17:15.

The '731 patent describes "an arrangement for closing the clip and for reversing the closing process to reopen the clip after closure has begun." *Id.* at 2:64–66. As described, certain

[e]mbodiments of the invention may include a lock arrangement for locking the clip closed; a control wire connected to the clip and able to be disconnected from the clip; an axially rigid sheath enclosing the control wire and communicating a compressive force opposing a tensile force of the control wire," as well as other elements to help "close and lock the clip and to uncouple the control wire from the clip.

*Id.* at 2:66–3:7. One advantage mentioned in the Specification is "[t]he device's ability to repeatedly open and close the clip until the desired tissue pinching is accomplished will lead to a quicker procedure, requiring less clips to be deployed, with a higher success rate." *Id.* at 3:9–13.

#### B. Illustrative Claim

Claims 1 and 20 are illustrative of the claims at issue:

# 1. A medical device, comprising:

a clip including first and second clip arms, the clip being movable between an open tissue receiving configuration in which the first and second arms are separated from one another by a distance selected to receive tissue therebetween and a closed configuration in which the first and second arms are moved inward to capture the tissue received therebetween; and

an opening element engaging inner walls of the first and second clip arms, the opening element urging the first and second clip arms away from one another into the open tissue-receiving configuration, wherein the opening element is movable between an expanded configuration and a retracted configuration to correspond to a movement of the clip between the open tissue receiving configuration and the closed configuration.

Ex. 1033, 15:37–52.

# 20. A method for capturing tissue, comprising:

inserting a medical device comprising a clip having first and second clip arms to a target tissue site, the clip including an opening element engaging inner walls of the first and second clip arms and urging the clip to an open tissue receiving configuration;

moving a control wire coupled to a proximal end of the clip distally to move the first and second clip arms away from one another to the open tissue receiving configuration;

moving the control wire proximally to move the first and second clip arms toward one another to a closed tissue capturing configuration; and

applying a proximal tensile force exceeding a threshold level to the control wire to separate the control wire from the clip.

*Id.* at 17:1–15. Independent claim 12 is similar in scope to claim 1, but further requires "a control wire coupled to a proximal end of the clip and operable to move the clip between the open and closed configurations." *Id.* at 16:40–42.

## C. Related Proceedings

patentability of related patents:

The '731 patent is the subject of *Boston Scientific Corp. v. Cook Group Inc.*, Civil Action No. 1:15-cv-00980-LPS-CJB (D. Del). Pet. 1; Paper 3, 2. Patent Owner identifies the following petitions challenging the

- 1. IPR2017-00131 (U.S. Patent No. 8,685,048);
- 2. IPR2017-00132 (U.S. Patent No. 8,685,048);
- 3. IPR2017-00133 (U.S. Patent No. 8,709,027);
- 4. IPR2017-00134 (U.S. Patent No. 8,709,027);
- 5. IPR2017-00135 (U.S. Patent No. 8,974,371); and,
- 6. IPR2017-00440 (U.S. Patent No. 9,271,731).

Paper 3, 2–3.

# D. References Relied Upon

Petitioner relies upon the following prior art reference: U.S. Patent No. 5,626,607 issued on May 6, 1997 ("Malecki") (Ex. 1003).

### E. The Asserted Grounds

Petitioner contends that the challenged claims are unpatentable based on the following specific grounds (Pet. 9)<sup>1</sup>:

Reference(s)	Basis	Claim(s) Challenged
Malecki (Embodiment #1) <sup>2</sup>	§ 102 <sup>3</sup>	1–4, 6, 9–18, and 20
Malecki (Embodiment #1)	§ 103	1–4, 6–18, and 20
Malecki (Embodiment #2)	§ 102	1–2, 4, 10–13, and 15
Malecki (Embodiment #2)	§ 103	3, 5–9, 14, and 16–20

#### II. CLAIM CONSTRUCTION

Petitioner identifies several terms for construction. Pet. 11–17. As an initial matter, Petitioner's support for its proposed interpretation of each term is lacking because Petitioner's only cited evidence is Patent Owner's

<sup>&</sup>lt;sup>1</sup> Petitioner also relies on the Declaration of Mark A. Nicosia, Ph.D. (Ex. 1037).

<sup>&</sup>lt;sup>2</sup> Petitioner identifies and relies upon specific embodiments within the overall disclosure of Malecki. For purposes of our analysis, we adopt Petitioner's identification. For purposes of institution, however, we institute based on the reference for those claims identified in the Order Section.

<sup>&</sup>lt;sup>3</sup> The relevant sections of the Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112–29, 125 Stat. 284 (Sept. 16, 2011), took effect on March 16, 2013. Because the application from which the '371 patent issued was filed before that date, our citations to Title 35 are to its pre-AIA version. *See* Pet. 8, n.2.

claim construction position from the related district court litigation. At this stage of the proceedings, however, "Patent Owner agrees to Petitioners' proposed constructions." Prelim. Resp. 4 ("For purposes of this preliminary response, Patent Owner agrees to Petitioners' proposed constructions.").

Claims in an *inter partes* review are given the "broadest reasonable construction in light of the specification of the patent in which [they] appear[]." 37 C.F.R. § 42.100(b) (2015); *Cuozzo Speed Techs.*, *LLC v. Lee*, 136 S. Ct. 2131, 2136 (2016). Below we construe only one term that is necessary to resolve the controversy before us for purposes of institution.

"engaging inner walls of the first and second clip arms"

We adopt the construction agreed upon by the parties for purposes of this Decision. Specifically, Petitioner contends that "engaging inner walls' simply requires that the opening element 'contact[]' the inner walls, without requiring a 'physical connection." Pet. 15 (quoting Ex. 1039, 3<sup>4</sup> (Patent Owner's claim construction position from district court)). Petitioner also notes "that 'engaging inner walls of the first and second clip arms' requires that the 'opening element' is 'positioned between the clip arms and of sufficient size to be able to engage the clip arms." *Id.* (quoting Ex. 1035, 3). Accordingly, the parties agree that "engaging inner walls of the first and second clip arms" means *contacting the inner walls, without requiring a physical connection, and positioned between the clip arms and of sufficient size to be able to engage the clip arms.* 

The Specification of the '731 patents suggests that the opening element can "engage" the inner walls of the clip arms, and urge those arms

<sup>&</sup>lt;sup>4</sup> We adopt the page numbering added by Petitioner at the bottom right hand corner of Exhibits 1039 and 1035.

open, simply by contacting them, rather than through a physical connection. *See* Ex. 1033, Figs. 8A, 14A, 10:66–11:24. Thus, for purposes of this Decision and based on the record before us, we adopt the parties' agreed upon construction.

#### III. ANALYSIS

A petition must show how the construed claims are unpatentable under the statutory ground it identifies. 37 C.F.R. § 42.104(b)(4). Petitioner bears the burden of demonstrating a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim for a petition to be granted. 35 U.S.C. § 314(a).

### A. Principles of Law

### 1. Anticipation

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). "To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

#### 2. Obviousness

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences

between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966).

## B. Person of Ordinary Skill in the Art

Petitioner proposes that a person of ordinary skill in the art as of the time of the filing of the application that became the '731 patent would have possessed the knowledge and skill of an engineer or similar professional with at least an undergraduate degree in engineering, or a physician having experience with designing medical devices. Pet. 10 (citing Ex. 1037 ¶ 11). Patent Owner does not dispute Petitioner's proposal, and we adopt it for purposes of this Decision. It is consistent with the level of skill evidenced by the references.

C. Claims 1–4, 6, 9–18, and 20 as Anticipated by Malecki Embodiment #1

Petitioner contends claims 1–4, 6, 9–18, and 20 are unpatentable, under 35 U.S.C. § 102, as anticipated by Malecki Embodiment #1. Pet. 23–41.

# 1. Overview of Malecki (Ex. 1003)

Malecki is directed to a clamp for clamping a body structure.

Ex. 1003, Abstract. Petitioner relies on two distinct embodiments of

Malecki – Embodiment #1 (Figure 28A) and Embodiment #2 (Figures 25–

27). Pet. 9. For purposes of this ground, Petitioner relies only on

Embodiment #1, represented by Figure 28A of Malecki, reproduced below.

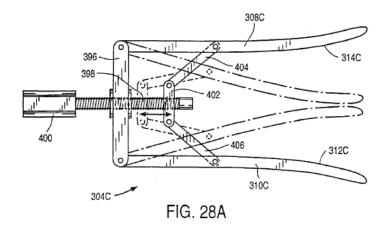
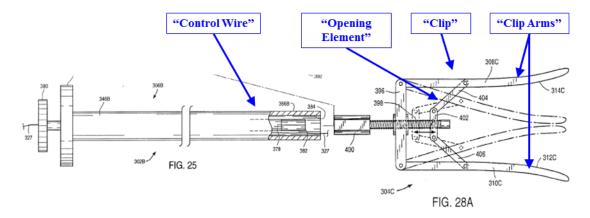


Figure 28a is a side view of a clamp. Ex. 1003, 6:29–30.

# 2. Discussion of Claims 1, 12, and 20

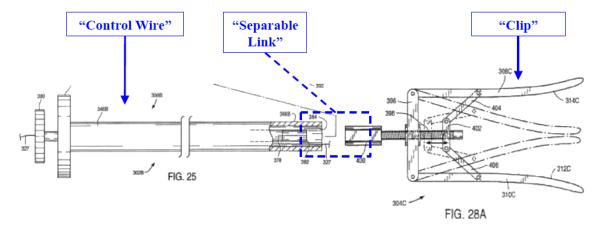
Petitioner asserts that Malecki Embodiment #1, alone, discloses all elements of claims 1, 12, and 20. Pet. 23–27, 36–37, 40–41. Petitioner's analysis is supported by the testimony of Dr. Nicosia. *See* Ex. 1037 ¶¶ 31–35, 44–47, 54–58.

According to Petitioner, Malecki Embodiment #1 discloses a medical device including a clip with clip arms, and a control wire for opening and closing the clip. Pet. 19. Petitioner contends that an opening element urges the clip arms away from one another into an open tissue-receiving configuration as the control wire is moved distally, as depicted in annotated Figures 25 and 28A below. *Id*.



Petitioner's annotated Figures 25 and 28A (Pet. 19).

Petitioner alleges that Malecki discloses that the same clamp positioner (306B of Figure 25) "may be used with each of the clips shown in Malecki Embodiments #1 and #2." Pet. 20 (citing Ex. 1003, 17:55–57). Thus, according to Petitioner, "Malecki Embodiment[] #1 [] also disclose[s] a separable link between the control wire and clip, to allow the clip to remain in a patient's body, as shown below." *Id*.

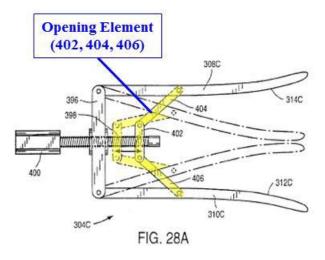


Petitioner's annotated Figures 25 and 28A (Pet. 21).

Petitioner argues that "Malecki Embodiment #1 discloses a clip (clamp 304C) including first and second clip arms (jaws 308C, 310C)." Pet. 23. Further, according to Petitioner, the clip arms are moveable between an open tissue receiving configuration depicted in Figure 28A and a closed

configuration (dashed line position in Figure 28A) in which the first and second arms are moved inward to capture the tissue. *Id.* For the "control wire" limitation of claims 12 and 20, Petitioner relies on rotating the drive body 346B, which results in the application of a proximal tensile force to the control wire (346B, 400, 398) to close the clip (304C), and rotating the drive body 346B in the other direction, which results in the application of a distally directed force to the control wire to open the clip of Malecki Embodiment #1. Pet. 32, 33, 37, 41.

Petitioner identifies the claimed "an opening element engaging inner walls of the first and second clip arms, the opening element urging the first and second clip arms away from one another into the open tissue-receiving configuration," as being taught by Malecki Embodiment #1. *Id.* at 24–25. Specifically, as depicted below, "an opening element (links 402, 404, connector 406 (highlighted in yellow)) that urges the first and second clip arms (308C, 310C) away from one another, from a closed configuration (dashed line position) into the open tissue receiving configuration (solid line position)." *Id.* at 24.



Petitioner's annotated Figure 28A (Pet. 25).

Petitioner contends that the opening element engages the inner walls of the first and second clip arms on two instances. *Id.* at 25–26. In the first instance, links 404, 406 of the opening element engage the inner walls of the first and second clip arms (308C, 310C). *Id.* Petitioner also contends "the opening element engages the inner bearing wall of pin holes in the clip arms (308C, 310C) (i.e., inner walls of the clip arms) via pins, which connect links 404, 406 to the clip arms (308C, 310C)." *Id.* at 26.

Patent Owner argues that Malecki Embodiment #1 does not disclose "an opening element engaging inner walls of the first and second clip arms" as required by each independent claim. Prelim. Resp. 17–18, 21–22, 24. According to Patent Owner, "Malecki Embodiment #1 does not disclose an opening element that engages the 'inner walls' because the links 404, 406 connect to the side walls of the jaws 308C, 310C." *Id.* at 17. Patent Owner argues that "[c]ontrary to Petitioners' assertion, the inner portion of the sidefacing wall of the jaws is not an 'inner wall' because it does not face inward." *Id.* 

Based upon our broadest reasonable interpretation of "an opening element engaging inner walls of the first and second clip arms" to mean that the opening element need only be "contacting the inner walls" Petitioner has persuasively established on this record that Malecki Embodiment #1 discloses this limitation. As noted above, Patent Owner has not objected to Petitioner's proposed claim interpretation. *See* Prelim. Resp. 4. As depicted in Figure 28A, links 404, 406 of the opening element contact the inner portion of inner walls of the first and second clip arms (308C, 310C) during pivoting movement. Although Patent Owner is correct that the pivot mounting point is on the side wall of clip arms (308C, 310C) – a connection

point is not required under the agreed upon broadest reasonable interpretation. Instead, the opening element need only contact the inner wall of clip arms 308C, 310C. Petitioner has sufficiently shown for purposes of this Decision that, as depicted in Figure 28A, opening element 404 would make contact with clip arm 308C below the pivot point on a small outside portion of the inner wall. *See* Pet. 26 (Petitioner's annotated Fig. 28A); Ex. 1037 ¶ 34 (annotated Fig. 28A depicting a contact area shaded in green).

Based on the record now before us, we determine that the information presented shows a reasonable likelihood that Petitioner would prevail in showing that Malecki Embodiment #1 discloses all the limitations of independent claim 1. Further, we have reviewed Petitioner's and Patent Owner's contentions regarding independent claims 12 and 20 and determine that the information presented shows a reasonable likelihood that Petitioner would prevail in showing that Malecki Embodiment #1 also discloses all the limitations of these claims. *See* Pet. 36–37, 40–41; Prelim. Resp. 21, 22, 24, 25 (relying on "reasons discussed with respect to Claim 1" for claims 12 and 20).

# 3. Discussion of Dependent Claims 2–4, 6, 9–11, 13–18

Having decided that Petitioner has shown a reasonable likelihood that Malecki Embodiment #1 discloses the elements of each independent claim challenged in the Petition, we exercise our discretion under 37 C.F.R. § 42.108 to have the review proceed on all of the challenged claims on which Malecki Embodiment #1 serves as the basis for unpatentability. *See Intex Recreation Corp. v. Bestway Inflatables & Material Corp.*, IPR2016-00180, 8–11 (PTAB June 6, 2016) (Paper 13).

D. Claims 1–4, 6–18, and 20 as Obvious in view of Malecki Embodiment #1

Petitioner contends claims 1–4, 6–18, and 20 are unpatentable, under 35 U.S.C. § 103 as obvious based on Malecki Embodiment #1. Pet. 42–57. Petitioner contends "[t]o the extent the walls engaged by the opening element are not considered 'inner walls,' this limitation is not a patentable distinction over Malecki Embodiment #1." *Id.* at 42. Petitioner presents an alternative theory that "[i]t would have been obvious to a person of ordinary skill in the art to construct the device shown in Figure 28A such that the links 404, 406 engage any one of these walls." *Id.* at 43. Based on the record before us, Petitioner provides reasonable support as to why it would have been obvious to make the proposed modifications to Malecki Embodiment #1. *Id.* at 43–44.

As noted above, having decided that Malecki Embodiment #1 evinces a reasonable likelihood that each independent claim challenged in the Petition is unpatentable, we exercise our discretion under 37 C.F.R. § 42.108 to have the review proceed on all of the challenged claims on which Malecki Embodiment #1 serves as the basis for unpatentability.

E. Claims 1–2, 4, 10–13, and 15 as Anticipated by Malecki Embodiment #2

Petitioner contends claims 1–2, 4, 10–13, and 15 are unpatentable, under 35 U.S.C. § 102, as anticipated by Malecki Embodiment #2. Pet. 58–69.

1. Overview of Malecki Embodiment #2 (Ex. 1003)

Malecki Embodiment #2 is represented by Figures 25–27. Ex. 1003. Figures 25 and 26 are depicted below.

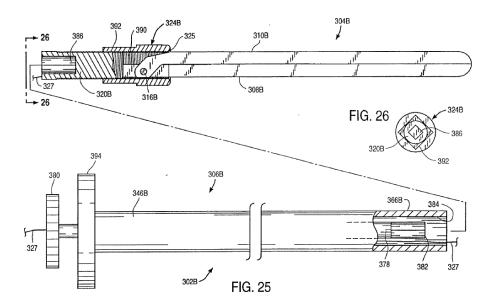


Figure 25 depicts a side view of a clamping assembly with the jaws actuated with a drive rod and Figure 26 represents an end view. Ex. 1003, 6:21–25.

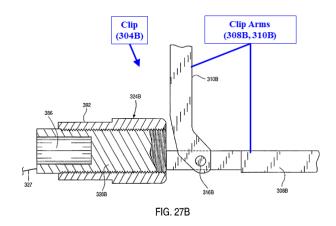
# 2. Discussion of Claims 1 and 12

We begin our analysis with independent claims 1 and 12. Petitioner asserts that Malecki Embodiment #2, alone, discloses all elements of these claims. Pet. 58–61, 66–67. For the reasons set forth below, and based on the record before us, Petitioner has not established persuasively that Malecki Embodiment #2 discloses each limitation of these claims.

Each of claims 1 and 12 require a clip movable to "a closed configuration in which the first and second arms are moved inward to capture the tissue received therebetween." Ex. 1033, 15:42–44, 16:29–31. Petitioner contends that

Malecki Embodiment #2 discloses a clip (clamp 304B) including first and second clip arms (jaws 308B, 310B), and moveable between an open tissue receiving configuration (Figure 27B) in which the first and second arms are separated from one another by a distance selected to receive tissue and a closed configuration (Figure 25) in which the first and second arms are moved inward to capture the tissue.

Pet. 58. Petitioner relies, in part, on annotated Figure 27B of Malecki depicted below.



Petitioner's annotated Figure 27B (Pet. 59).

Patent Owner contends that "Malecki Embodiment #2 does not disclose a medical device 'in which the first and second arms are moved inward to capture the tissue received therebetween." Prelim. Resp. 41. Patent Owner argues that although Malecki Embodiment #2 has two jaws (308B, 310B) with the first jaw 310B being pivotally mounted, Malecki depicts and describes jaw 308B as being fixed. *Id.* Specifically, Malecki states that "[t]he first jaw 310B is pivotally mounted to a threaded jaw extension 320B at a pivot 316B while jaw 308B is fixed." Ex. 1003, 16:53–59 (emphasis added).

We agree with Patent Owner that the claim language "the first and second arms are moved inward" requires that both arms be movable inward. Based on the record before us, arm 308B is fixed and thus not able to be moved inward as required by the claim language. Petitioner's analysis (Pet. 58) does little more than repeat the claim language and allege that Malecki Embodiment #2 meets the claim requirement that "the first and second arms are moved inward." Pet. 58. Petitioner does not adequately explain how

"the first and second arms are moved inward" in relation to the clip when the embodiment relied on states that arm 308B is fixed and therefore not movable.

Based on the record before us, Petitioner has not established persuasively that Malecki Embodiment #2 discloses "the first and second arms are moved inward" requirement of claims 1 and 12. For this reason, Petitioner has failed to show a reasonable likelihood that it would prevail in showing that Malecki Embodiment #2 anticipates claims 1 and 12. Accordingly, we decline to institute a review of claim 1 or claim 12 under 35 U.S.C. § 102 as anticipated by Malecki Embodiment #2.

3. Claims 2, 4, 10, 11, 13, and 15

Petitioner asserts that Malecki Embodiment #2 discloses all elements of these claims. Pet. 62–69.

Claims 2, 4, 10, and 11 depend from claim 1 and claim 15 depends from claim 12. In its analysis of these claims, Petitioner does not provide any argument or evidence overcoming the deficiencies we noted above as to claims 1 and 12. For the reasons set forth above for claims 1 and 12, Petitioner has failed to show a reasonable likelihood that it would prevail in showing that Malecki Embodiment #2 anticipates claims 2, 4, 10, 11, 13, and 15. Accordingly, we decline to institute a review of these claims under 35 U.S.C. § 102 as anticipated by Malecki Embodiment #2.

F. Claims 3, 5–9, 14, and 16–20 as Obvious in view of Malecki Embodiment #2

Petitioner contends claims 3, 5–9, 14, and 16–20 are unpatentable, under 35 U.S.C. § 103 as obvious over Malecki Embodiment #2. Pet. 70–82.

### 1. Claims 3, 5–9, 14, and 16–19

Petitioner asserts that Malecki Embodiment #2 teaches all elements of these claims. Pet. 70–80.

Claims 3, 5–9, 14, and 16–19 depend directly, or indirectly, from claims 1 and 12. As discussed above, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing in showing the unpatentability of claims 1 and 12 based on Malecki Embodiment #2 because this embodiment fails to disclose "the first and second arms are moved inward." In its obviousness analysis of claims 3, 5–9, 14, and 16–19, Petitioner does not provide any argument or evidence overcoming the deficiencies we noted above as to claims 1 and 12. For the reasons set forth above for claims 1 and 12, Petitioner has failed to show a reasonable likelihood that claims 3, 5–9, 14, and 16–19 are obvious over Malecki Embodiment #2. Accordingly, we decline to institute a review of these claims under 35 U.S.C. § 103 as obvious over Malecki Embodiment #2.

#### 2. Claim 20

Petitioner asserts that Malecki Embodiment #2 teaches all elements of claim 20, including the requirement that the control wire is moved proximally in order "to move the first and second clip arms toward one another to a closed tissue capturing configuration." Pet. 82. Again, Petitioner does not address adequately how Malecki Embodiment #2 teaches clip arms capable of moving toward one another when one such arm is fixed. In its obviousness analysis, Petitioner fails to address this discrepancy or to propose any modifications to Malecki Embodiment #2 in order to meet these limitations. Likewise, Petitioner does not offer any theory as to how any other embodiment of Malecki could be combined with Malecki Embodiment

#2 to teach this limitation. Accordingly, we determine that the Petition does not establish a reasonable likelihood that Petitioner would prevail in showing that claim 20 would have been obvious over Malecki Embodiment #2.

## IV. CONCLUSION

For the foregoing reasons, we determine that the information presented establishes a reasonable likelihood that Petitioner would prevail in showing that claims 1–4, 6–18, and 20 of the '731 patent are unpatentable. We, however, determine that Petitioner has not made a sufficient showing with respect to claims 5 and 19. At this preliminary stage, we have not made a final determination with respect to the patentability of the challenged claims or any underlying factual and legal issues.

### V. ORDER

Accordingly, it is:

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted as to claims 1–4, 6–18, and 20 of the '731 patent on the following ground of unpatentability:

Reference	Basis	Challenged Claim(s)
Malecki	§ 102	1–4, 6, 9–18, and 20
Malecki	§ 103	1–4, 6–18, and 20

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision; and

FURTHER ORDERED that the trial is limited to the grounds identified immediately above, and no other ground is authorized.

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