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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* NICHOLAS PERGOLA

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Appeal 2018-002199  
Application 12/268,247  
Technology Center 3700

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Before BRETT C. MARTIN, ANNETTE R. REIMERS, and  
LEE L. STEPINA, *Administrative Patent Judges*.

REIMERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE<sup>1,2</sup>

Appellant<sup>3</sup> appeals under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–8, 14–19, 22, 23, 29, 31–40, and 42–50. Claims

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<sup>1</sup> The Examiner has withdrawn the 35 U.S.C. § 112, second paragraph, rejection of claims 47, 48, and 50 for indefiniteness. *See* Examiner's Answer ("Ans.") 3, dated Oct. 20, 2017; *see also* Final Office Action ("Final Act.") 4–6, dated May 13, 2016.

<sup>2</sup> The Examiner has objected to claims 22, 36, 39, and 47 as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. *See* Final Act. 23–26.

<sup>3</sup> We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Cochlear Limited.

9–13, 20, 21, 24–28, 30, and 41 have been canceled. An Oral Hearing in accordance with 37 C.F.R. § 41.47 was held on September 24, 2019. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

### CLAIMED SUBJECT MATTER

The claimed subject matter “relates to an apparatus . . . for interfacing an implantable hearing instrument with a patient’s auditory system.” *See* Spec. 1:9–10, Figs. 2, 4. Claims 1, 17, and 23 are independent.

Claim 1 is illustrative of the claimed subject matter and recites:

1. A connector for transmitting movement of a hearing implant actuator to an auditory component of a patient, the connector comprising:
  - an elongate body having:
    - a first end adapted for fixed attachment to a supporting structure; a second end adapted to engage an auditory component;
    - wherein said elongate body extends between said first and second ends and at least a portion of said elongate body is offset from a reference line extending between said first and second ends.

### REJECTIONS

- I. Claims 44 and 45 stand rejected under 35 U.S.C. § 112, first paragraph, for lack of written description.
- II. Claims 5, 6, 33, 34, and 38 stand rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.
- III. Claims 29, 35, and 38 stand rejected under 35 U.S.C. § 101 for

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Appeal Br. (“Appeal Br.”) 2, filed Mar. 20, 2017.

encompassing a human organism.

IV. Claims 1–6, 8, 14, 15, 29, 31–33, 40, 42, 44–46, and 49 stand rejected under 35 U.S.C. § 102(b) as anticipated by Kroll (US 6,540,662 B2, issued Apr. 1, 2003).

V. Claims 17, 34, 35, 43, and 48 stand rejected under 35 U.S.C. § 102(b) as anticipated by Bushek (US 6,325,755 B1, issued Dec. 4, 2001).

VI. Claims 23, 37, and 38 stand rejected under 35 U.S.C. § 102(b) as anticipated by Ball (US 6,139,488, issued Oct. 31, 2000).

VII. Claims 7 and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kroll and aWengen (US 2007/0021833 A1, published Jan. 25, 2007).

VIII. Claims 18 and 19 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Bushek.

IX. Claim 50 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Ball.

## ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellant’s arguments that the Examiner erred. In reaching this decision, we have considered all evidence presented and all arguments Appellant made. Arguments Appellant could have made, but chose not to make in the Briefs, are deemed waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). (“The arguments [in the appeal brief] shall explain why the examiner erred as to each ground of rejection contested by appellant.”); *see also In re Hyatt*, 211 F.3d 1367, 1373 (Fed. Cir. 2000) (noting that an argument not first raised in the brief to the Board is waived on appeal).

*Written Description*

*Claims 44 and 45*

Claim 45 depends from claim 44. Appeal Br. 234 (Claims App.). As to claim 44, the Examiner determines that “[t]here is no disclosure [in the Specification] of an electrical wire that is different and separate from the mechanical actuator output shaft and completely spaced away from the mechanical actuator output shaft that extends from the mechanical actuator” and that “since the actuator is recited as a mechanical actuator, it is unclear as to what role the electrical wire extension plays [] or why it is required.” Final Act. 2–3. Appellant does not present arguments directed to the rejection, and thus, has waived any such arguments. *See* Appeal Br., *generally*; *see also* Ans. 14.

Accordingly, we summarily affirm the Examiner’s rejection of claims 44 and 45 for lack of written description.

*Indefiniteness*

*Claims 5 and 6*

Claim 6 depends from claim 5, and claim 5 depends from claim 1. Appeal Br. 229 (Claims App.). Claim 5 recites “at least a portion of said elongate body.” *Id.* The Examiner determines that “it is unclear as to whether claim 5 ‘at least a portion of said elongate body’ is the same as or different than or in addition to ‘at least a portion of said elongate body’” of claim 1. Final Act. 4; *see also* Ans. 4–5.

Claim 1 recites “at least a portion of said elongate body . . . extend[s] between said first and second ends.” Appeal Br. 229 (Claims App.). Upon review of claims 1 and 5, a skilled artisan would recognize that the “at least

a portion of said elongate body between said first and second ends” of claim 5 is in reference to the “elongate body” of claim 1.

Accordingly, we do not sustain the Examiner’s rejection of claims 5 and 6 for indefiniteness.

*Claims 33 and 34*

Claim 34 depends from claim 33. Appeal Br. 232 (Claims App.). Claim 33 recites “displacing the center portion of the elongate body.” *Id.* The Examiner determines that “it is unclear as to what constitutes ‘the center portion’ as ‘portion’ lends itself to multiple interpretations because ‘a center portion’ could be the center or encompass a much larger part in the proximity of the center or some such intermediate area.” Final Act. 4; *see also* Ans. 5–6.

In this case, upon review of claim 33, we agree with Appellant that a skilled artisan would understand “what is meant by ‘the center portion’” of the elongate body. Appeal Br. 22–23.

Accordingly, we do not sustain the Examiner’s rejection of claims 33 and 34 for indefiniteness.

*Claim 38*

Claim 38 recites “the first end is interconnected with structure of the middle ear.” Appeal Br. 232–233 (Claims App.). The Examiner determines that “[i]t is unclear if this is the same as or different than ‘a stationary middle ear structure’ recited [in] claim 23, from which claim 38 depends.” Final Act. 5. Here, the Examiner acknowledges that “as recited a broad yet reasonable interpretation of ‘structure of the middle ear’ would encompass both ‘stationary middle ear structure’ and ‘non-stationary or moving middle ear structures.’” Final Act. 28; *see also* Ans. 6. We agree with Appellant

that “[b]ased on this clarification, . . . claim 38 is broad enough to connect to stationary and non-stationary portions of the middle ear” and that the Examiner’s interpretation relates to the breadth, and not the indefiniteness, of the claim. Appeal Br. 23–24; *See SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1341 (Fed. Cir. 2005) (breadth is not indefiniteness).

Accordingly, we do not sustain the Examiner’s rejection of claims 38 for indefiniteness.

### *Human Organism*

#### *Claims 29, 35, and 38*

Claim 29 recites “the first end is attached to structure of the middle ear” and “the second end is attached to the auditory component,” claim 35 recites “the first end of the first linkage member is fixedly engaged with structure of the middle ear” and “the first end of the second linkage member is fixedly engaged to the auditory component,” and claim 38 recites “the first end is interconnected with structure of the middle ear” and “the second end is interconnected to the auditory component.” Appeal Br. 231–233 (Claims App.). The Examiner determines that “[t]hese limitations positively recite and are directed to or encompass portions of the human organism.” Final Act. 7.

We disagree with the Examiner’s position that claims 29, 35, and 38 are directed to non-statutory subject matter under 35 U.S.C. § 101. Rather, “the claims relate only to the correct placement of the device in the human patient, and as a whole, do not encompass a human organism.” *See Ex parte Bray*, Appeal No. 2011-013427, 2013 WL 3293616, at \*3 (PTAB June 3, 2013); *see also* Appeal Br. 36 (“Claims 29, 35, and 38 are not claiming the

structure of the middle ear. These claims do not claim the recipient. These claims claim something that can only be infringed when interacting with tissue of the recipient.”). Further, “[t]here is nothing in the statute, and we are unaware of any case, that categorically excludes such devices.” *See Ex parte Bray*, 2013 WL 3293616, at \*3.

Accordingly, for these reasons, we do not sustain the Examiner’s rejection of claims 29, 35, and 38 for encompassing a human organism.

*Anticipation by Kroll*

*Claim 1*

The preamble of claim 1 recites “[a] connector for transmitting movement of a hearing implant actuator to an auditory component of a patient.” Appeal Br. 229 (Claims App.). The Examiner does not give patentable weight to the phrase “for transmitting movement of a hearing implant actuator to an auditory component of a patient” and finds that it merely recites the purpose or the intended use of the connector. Final Act. 9.

Appellant contends that because a number of dependent claims “affirmatively recite the actuator in the body of the claim, they force the ‘for transmitting movement of a hearing implant actuator to an auditory component of a patient’ of claim 1 to be treated as a limitation [and] negate any assertion that the preamble is not a limitation.” Appeal Br. 46.

In general, a preamble limits the claimed invention “if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). The preamble limits

claim scope when it is essential to understand limitations or terms in the claim body. *Id.* Conversely, a preamble is not limiting where a structurally complete invention is defined in the claim body and the preamble only states a purpose or intended use for the invention. *Id.*

Claim 1 is directed to a “connector.” Appeal Br. 229 (Claims App.). We construe the preamble phrase “for transmitting movement of a hearing implant actuator to an auditory component of a patient” to be merely a field of use phrase, with none of the words recited in this phrase being also incorporated into the remainder of the claim (i.e., the claim body) so as to breathe life and breath into the claim. Field of use recitations are typically found in the preamble of claims, and the weight given them largely depends on how the recitation is subsequently used in the body of the claim. *Pitney Bowes*, 182 F.3d at 1306. In other words, “if the preamble merely state[s] a purpose or intended use and the remainder of the claim completely defines the invention independent of the preamble,” it does not constitute a limitation. *Lipscomb’s Walker on Patents, 3rd Edition, Vol. 3, § 11.11* at p. 361 (citing *Marston v. J.C. Penney Co.*, 353 F.2d 976, 986 (4th Cir. 1965)); see also, *Rowe v. Dror*, 112 F.3d 473,478 (Fed. Cir. 1997); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989).

In this case, the remainder of the claim (i.e., the claim body) completely defines the invention by setting forth structural limitations of the “connector” independent of the preceding preamble language. Moreover, it is well established that “[a]n intended use or purpose usually will not limit the scope of the claim because such statements usually do no more than define a context in which the invention operates.” *Boehringer Ingelheim Vetmedica v. Schering-Plough Corp.*, 320 F.3d 1339, 1345, (Fed. Cir. 2003).

We conclude that identifying the “connector” as being “for transmitting movement of a hearing implant actuator to an auditory component of a patient” does no more than define the context in which the connector operates. Therefore, the Examiner’s treatment of the preamble language “for transmitting movement of a hearing implant actuator to an auditory component of a patient” as an intended use limitation is proper. Final Act. 9; *See Rowe v. Dror*, 112 F.3d at 478 (“[W]here a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation.”) (citations omitted).

Appellant contends that even if the preamble is not treated as a limitation, Kroll fails to disclose the connector of claim 1. *See* Appeal Br. 67. Specifically, Appellant contends that “the Examiner is using the actuator of Kroll as the connector in general, and the elongate body in particular. That is, the broadest reasonable interpretation of ‘connector’ and ‘elongate body’ must encompass a transducer / actuator of Kroll.” *Id.*; *see also id.* at 68–85.

Here, the Examiner finds that Kroll discloses a connector “including an elongate body (see 106/108, 136/138, or 156/158 for example).” Final Act. 9. Elements 106, 136, and 156 of Kroll represent embodiments of “transducers” and elements 108, 138, and 158 of Kroll represent embodiments of a “frame assembly.” *See* Kroll 4:39–41, 6:18–20, 54–55. Appellant contends that the transducer of Kroll (i.e., elements 106, 138, and 158 of Kroll) constitutes an “actuator.” *See* Appeal Br. 68 (“Element 106 [of Kroll] is an actuator.”). However, we note that Appellant’s own Specification differentiates between an “actuator” 112 and a “transducer”

108 (*see* Spec. 7:5–6 (“The transducer 108 includes a vibratory actuator 112 for transmitting vibrations from the transducer 108 to an auditory component of the patient.”)) and that Kroll does not disclose an “actuator” (*see* Kroll, *generally*). Given that a transducer and an actuator are separate elements, we are not persuaded that Kroll’s transducer is also *necessarily* an “actuator.” *See* Appeal Br. 69 (“Clearly elements 108 [transducer] and 112 [actuator] of the [S]pecification correspond to element 106 [transducer] of Kroll.”) (citing Figure 2 of the subject invention and Figure 3 of Kroll).

Although Appellant’s Specification does not explicitly define the term “connector,” Appellant directs us to page 9 line 28 through page 10 line 13<sup>4</sup> of the Specification, which describes a “spanning” connector. *See* Appeal Br. 81. However, we note that claim 1 more broadly recites a “connector.” *See id.* at 229 (Claims App.). Using transducer 106 and frame assembly 108 as an example, Kroll discloses that “[t]ransducer **106** is disposed within middle ear space **24** and secured against a wall of middle ear space **24** or within mastoid cavity **126** against mastoid bone **34** with frame assembly **108** using one or more fasteners” and that “transducer **106** is operatively connected to stapes **46**.” Kroll 4:62–66, Fig. 3. In other words, transducer 106 with frame assembly 108 serves as a “connector”<sup>5</sup> (i.e., a link) between stapes 46 and a wall of middle ear space 24 or mastoid bone 34.

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<sup>4</sup> Although Appellant cites to paragraph 39 of the Specification, the Specification does not include paragraphs. *See* Appeal Br. 81. We consider this a typographical error.

<sup>5</sup> An ordinary and customary meaning of the term, “connector,” which is consistent with Appellant’s Specification, is “[a] thing which links two or more things together.” <https://www.lexico.com/en/definition/connector> (last accessed Sept. 26, 2019).

In view of the claim language recited in claim 1, under the broadest reasonable interpretation, Kroll discloses a connector including an elongate body 106/108 having a first end adapted for fixed attachment via a fastener to a supporting structure (e.g., mastoid bone 34); a second end adapted to engage via an operative connection an auditory component (e.g., stapes 46); wherein said elongate body 106/108 extends between said first and second ends and at least a portion of said elongate body is offset (i.e., at the joint) from a reference line extending between said first and second ends. *See* the Board’s annotated version of Figure 3 of Kroll below.

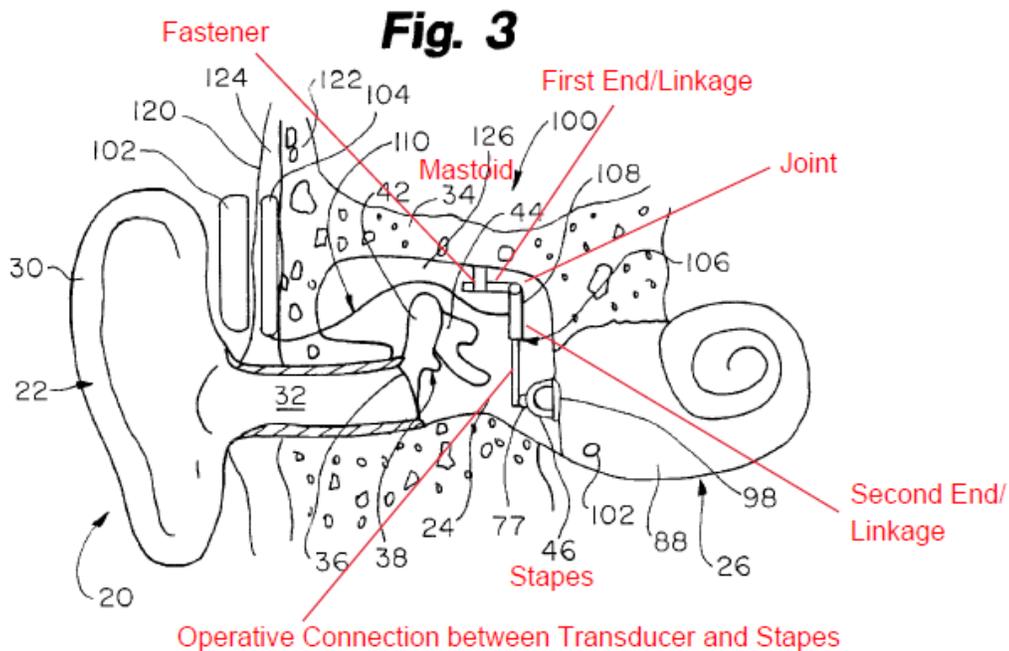


Figure 3 of Kroll, illustrated above, “is a sectional view of an auditory system of a human subject incorporating a first embodiment of an implantable hearing system of the present invention.” Kroll 2:59–61.

Based on Kroll's disclosure, we agree with the Examiner that Kroll discloses the connector of claim 1. Accordingly, we sustain the Examiner's rejection of claim 1 as anticipated by Kroll.

*Claims 2–4*

Claim 2 recites, “[t]he connector of claim 1, further comprising: an actuator engagement surface disposed along said elongate body between said first and second ends for engaging an actuator of an implantable hearing instrument.” Appeal Br. 229 (Claims App.). We agree with Appellant that an actuator is a device that actuates or moves something and a skilled artisan would not interpret the internal signal processor 104 of Kroll to constitute an “actuator,” as proposed by the Examiner. *See* Final Act. 10; *see also* Appeal Br. 87–88. Accordingly, we do not sustain the Examiner's rejection of claims 2–4 as anticipated by Kroll.

*Claims 5 and 6*

Claim 5 recites, “[t]he connector of claim 1, wherein at least a portion of said elongate body between said first and second ends is arcuate, defining an arcuate portion of said elongate body.” Appeal Br. 229 (Claims App.). The Examiner cites to Figures 8 and 9 of Kroll for this limitation. *See* Final Act. 10. We agree with Appellant that, at best, “there are right angles to elements 106 and 108.” *See* Appeal Br. 93; *see also* Kroll, Fig. 8. We also agree with Appellant that the Examiner's finding is entirely speculative, and does not find support in the disclosure of the reference. *See id.* at 93–95. Accordingly, we do not sustain the Examiner's rejection of claims 5 and 6 as anticipated by Kroll.

*Claim 8*

Claim 8 recites, “[t]he connector of claim 1, wherein application of a force to said at least a portion of said body in a first direction displaces said second end in a second direction that is at least partially transverse to the first direction.” Appeal Br. 230 (Claims App.). The Examiner finds that “application of a force to at least a portion of the elongate body of Kroll in a first direction will displace the second end in a second direction that is at least partially transverse to the first direction due to the presence of universal joint (210).” Final Act. 10; *see also* Kroll 7:41–48, 8:8–15, Figs. 3, 7C. Appellant does not provide persuasive evidence or argument apprising us of Examiner error. *See* Appeal Br. 96–98; *see also* Reply Br. 59–60.<sup>6</sup> Accordingly, we sustain the Examiner’s rejection of claim 8 as anticipated by Kroll.

*Claim 14*

Kroll discloses the elements of claim 14. *See* the Board’s annotated version of Figure 3 of Kroll above. In addition, Kroll discloses that Figure 3 “show[s] a mounting bracket [108]” and that Figure 7C “show[s] a bracket system 200 having a transducer 202 attached to the single bracket support 204.” Kroll 7:41–48, Figs. 3, 7C. Kroll further discloses:

FIG. 7C shows an embodiment having a universal connector 210 placed between the transducer 202 and the single bracket support 204. The universal connector 210 may also be placed between the two portions of the single bracket support 204. The universal connector 210, such as a ball and socket joint, allows further adjustability and 360-degree movement to position the transducer 202 against respective auditory elements 42 and 46.

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<sup>6</sup> Reply Brief (“Reply Br.”), filed Dec. 20, 2017.

Kroll 8:8–15, Fig. 7C; *see also* Final Act. 10.

Based on Kroll’s disclosure, we agree with the Examiner that Kroll discloses “wherein said joint permits relative movement between said first and second linkages.” *See* Final Act. 10–11 (citing Kroll 8:8–15, Figs. 3–5, 8, and 9); *see also* the Board’s annotated version of Figure 3 of Kroll above. Accordingly, we sustain the Examiner’s rejection of claim 14 as anticipated by Kroll.

*Claim 15*

Claim 15 recites, “[t]he connector of claim 14, wherein said joint comprises a hinge.” Appeal Br. 230 (Claims App.). The Examiner finds that “the joint (210) of Kroll may be considered a hinge.” Final Act. 11. We agree with Appellant that the Examiner provides “no support for this assertion.” Appeal Br. 104. Indeed, the section of Kroll that describes joint 210 states “a ball and socket” joint. *See* Kroll 8:12–13. Accordingly, we do not sustain the Examiner’s rejection of claim 15 as anticipated by Kroll.

*Claim 29*

In citing to Figures 3–5, 8, and 9 of Kroll, the Examiner fails to establish that Kroll discloses that the “first end” of claim 1 “is attached to structure of the middle ear of a recipient of the connector at a location *just above the tympanic membrane*.” *See* Final Act. 11; *see also* Appeal Br. 231 (Claims App.) (emphasis added). Accordingly, we do not sustain the Examiner’s rejection of claim 29 as anticipated by Kroll.

*Claim 31*

We agree with the Examiner that Kroll discloses “wherein the elongate body includes a joint located between the first end and the second end.” *See* Final Act. 10–11; *see also* the Board’s annotated version of

Figure 3 of Kroll above. Accordingly, we sustain the Examiner's rejection of claim 31 as anticipated by Kroll.

*Claim 32*

We agree with Appellant that an actuator is a device that actuates or moves something and a skilled artisan would not interpret the internal signal processor 104 of Kroll to constitute an "actuator," as proposed by the Examiner. *See* Final Act. 10; *see also* Appeal Br. 86–88. Accordingly, we do not sustain the Examiner's rejection of claim 32 as anticipated by Kroll.

*Claim 33*

We disagree with the Examiner that claim 33 is "a recitation of an intended use." *See* Final Act. 11–12 (emphasis omitted). In this case, we agree with Appellant that the "active ear implant" of claim 33 is a structural feature having *functional* claim limitations and that the Examiner does not provide sufficient evidence or technical reasoning to establish the reasonableness of a belief that the elements of claim 33 are an inherent characteristic of Kroll. *See* Appeal Br. 107–119; *see also* Final Act. 11–12; *In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971); *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993). Accordingly, we do not sustain the Examiner's rejection of claim 33 as anticipated by Kroll.

*Claim 40*

We agree with Appellant that an actuator is a device that actuates or moves something and a skilled artisan would not interpret the internal signal processor 104 of Kroll to constitute an "actuator" as proposed by the Examiner. *See* Final Act. 12; *see also* Ans. 18; Appeal Br. 86–88, 120. Accordingly, we do not sustain the Examiner's rejection of claim 40 as anticipated by Kroll.

*Claim 42*

We agree with the Examiner that the first end linkage is configured such that its respective length is fixed via a fastener. *See* Final Act. 12; *see also* the Board’s annotated version of Figure 3 of Kroll above. However, in citing to Figures 3–5, 8, and 9 of Kroll, the Examiner fails to establish by sufficient evidence or technical reasoning that the “second end linkage” is configured such that “its respective length is fixed.” *See* Final Act. 12; *see also* Appeal Br. 128; *id.* at 233 (Claims App.). Accordingly, we do not sustain the Examiner’s rejection of claim 42 as anticipated by Kroll.

*Claims 44–46 and 49*

We agree with Appellant that a skilled artisan would not interpret the universal joint 222 of Kroll to constitute the “actuator” as claimed. *See* Final Act. 12–14; *see also* Ans. 18; Appeal Br. 129–141; *id.* at 233–235 (Claims App.). Accordingly, we do not sustain the Examiner’s rejection of claims 44–46 and 49 as anticipated by Kroll.

*Anticipation by Bushek*

*Claims 17, 34, 35, 43, and 48*

Claim 17 recites that “when an active ear implant applies a first stimulus to one of the linkage members or the joint in a first direction, a second stimulus is applied to the first end of the second linkage member in a second direction that is at least partially transverse to the first direction.” Appeal Br. 230 (Claims App.). Here, we disagree with the Examiner that “an active ear implant” is not “positively recited, but merely [is] an intended result.” *See* Final Act. 15. Rather, the active ear implant of claim 17 is a structural feature that functionally “applies a first stimulus to one of the

linkage members or the joint in a first direction.” *See* Appeal Br. 230 (Claims App.). We further disagree with the Examiner that the “whereby” clause of claim 17 is conditional. *See* Final Act. 34–35; *see also* Ans. 20–21; Appeal Br. 151–152. The “whereby” clause of claim 17 is not a situation where a condition must be met (i.e., an if/then clause) for the structure to perform a function. *See Ex parte Schulhauser* (Appeal No. 2013-007847 (PTAB April 28, 2016) (precedential)). Stated differently, claim 17 recites “*when* an active ear implant applies a first stimulus to one of the linkage members or the joint in a first direction,” *then* “a second stimulus is applied to the first end of the second linkage member in a second direction that is at least partially transverse to the first direction,” this describes the structural arrangement required by the claim. *See* Appeal Br. 230 (Claims App.).

In this case, as the Examiner considers the “active ear implant” to be “an intended result” and not a “structural feature” as required by claim 17, the Examiner does not apprise us as to what element of Figure 14 of Bushek constitutes the “active ear implant.” *See* Final Act. 15. Additionally, we agree with Appellant that “[r]otation is rotation” and a skilled artisan in the medical arts would not consider “rotation” of locking screw 270 of Bushek to constitute “a first stimulus” applied in a first direction, as required by claim 17. *See* Appeal Br. 156 (“Rotation is not stimulus in a first direction.”); *see also* Final Act. 15. For these reasons, the Examiner fails to establish by a preponderance of the evidence that the teachings of Bushek anticipate claim 17. Accordingly, we do not sustain the Examiner’s rejection of claims 17, 34, 35, 43, and 48 as anticipated by Bushek.

*Anticipation by Ball*

*Claims 23, 37, and 38*

Claim 23 recites an actuator physically engaging an elastic member, the actuator “being operative to move in at least a first direction to apply a biasing force to said elastic member, wherein said second end of said elastic member moves in a second direction in response to said biasing force, wherein said first and second directions are at least partially transverse.”

Appeal Br. 231 (Claims App.). The Examiner finds that Ball discloses “an actuator (510) physically engaging said elastic member (560) (Fig. 9).”

Final Act. 18. The Examiner further finds:

[The] actuator being operative to move in at least a first direction to apply a biasing force to said elastic member (due to bending of piezoelectric strips - col. 9, lines 23-40), wherein said second end of said elastic member moves in a second direction in response to said biasing force, wherein said first and second directions are at least partially transverse (as a force transferred through coiled spring 560 would travel in a direction perpendicular or transverse to the first direction at several points through the spring).

*Id.* at 18–19.

In this case, we agree with Appellant that the Examiner fails to establish by sufficient evidence or technical reasoning that the “second end” of elastic member 560 (i.e., the end of 560 connected via mechanical coupling 580 to stapes HH (*see* Ball 9:47–48)) *necessarily* moves in a second direction in response to the biasing force applied by actuator 510 to elastic member 560. *See* Final Act. 18–19; *see also* Appeal Br. 186–187 (“Claim 23 recites that the *second end* of said elastic member moves in a second direction. There is absolutely no support or evaluation of the prior

art as to why Ball expressed [sic] inherently discloses this feature.”). The Examiner does not address Appellant’s contention in the Answer and merely repeats what was already stated in the Final Office Action. *Compare* Ans. 12–13 *with* Final Act. 18–19. As such, the Examiner fails to establish by a preponderance of the evidence that the teachings of Ball anticipate claim 23. Accordingly, we do not sustain the Examiner’s rejection of claims 23, 37, and 38 as anticipated by Ball.

*Obviousness over Kroll and aWengen*

*Claim 7*

The Examiner finds that Kroll “fails to disclose explicitly that the elongate body is elastically deformable as recited in Claim 7” and relies on the teachings of aWengen for the limitations of claim 7. Final Act. 21. Appellant does not present arguments directed to this rejection, and thus, has waived any such arguments. *See* Appeal Br., *generally*. Accordingly, we summarily affirm the Examiner’s rejection of claim 7 as unpatentable over Kroll and aWengen.

*Claim 16*

Claim 16 depends from claim 15 and recites “[t]he connector of claim 15, wherein said hinge comprises a living hinge.” Appeal Br. 230 (Claims App.). As noted above for the anticipation rejection, the Examiner provides no support for the finding that “the joint (210) of Kroll may be considered a hinge.” *See* Final Act. 11. Indeed, the section of Kroll that describes joint 210 states “a ball and socket” joint. *See* Kroll 8:12–13. As the section of aWengen cited by the Examiner (i.e., aWengen ¶ 17) also discloses a “ball and socket” joint, aWengen does not cure this deficiency of Kroll. *See* Final

Act. 21. Accordingly, we do not sustain the Examiner's rejection of claim 16 as unpatentable over Kroll and aWengen.

*Obviousness over Bushek*

*Claims 18 and 19*

Claims 18 and 19 ultimately depend from claim 17. *See* Appeal Br. 230–231 (Claims App.). The Examiner's rejection of claims 18 and 19 is based on the same unsupported findings discussed above with respect to claim 17. *See* Final Act. 21–22. The Examiner does not rely on any proposed modifications to Bushek to remedy the deficiencies of Bushek. Accordingly, for reasons similar to those discussed above for claim 17, we do not sustain the Examiner's rejection of claims 18 and 19 as unpatentable over Bushek.

*Obviousness over Ball*

*Claim 50*

Claim 50 depends from claim 23. *See* Appeal Br. 235 (Claims App.). The Examiner's rejection of claim 50 is based on the same unsupported findings discussed above with respect to claim 23. *See* Final Act. 22–23. The Examiner does not rely on any proposed modifications to Ball to remedy the deficiencies of Ball. Accordingly, for reasons similar to those discussed above for claim 23, we do not sustain the Examiner's rejection of claim 50 as unpatentable over Ball.

DECISION

We AFFIRM the Examiner's decision to reject claims 44 and 45 under 35 U.S.C. § 112, first paragraph, for lack of written description.

We REVERSE the Examiner's decision to reject claims 5, 6, 33, 34, and 38 under 35 U.S.C. § 112, second paragraph, for indefiniteness.

We REVERSE the Examiner's decision to reject claims 29, 35, and 38 under 35 U.S.C. § 101 for encompassing a human organism.

We AFFIRM the Examiner's decision to reject claims 1, 8, 14, and 31 under 35 U.S.C. § 102(b) as anticipated by Kroll.

We REVERSE the Examiner's decision to reject claims 2–6, 15, 29, 32, 33, 40, 42, 44–46, and 49 under 35 U.S.C. § 102(b) as anticipated by Kroll.

We REVERSE the Examiner's decision to reject claims 17, 34, 35, 43, and 48 under 35 U.S.C. § 102(b) as anticipated by Bushek.

We REVERSE the Examiner's decision to reject claims 23, 37, and 38 under 35 U.S.C. § 102(b) as anticipated by Ball.

We AFFIRM the Examiner's decision to reject claim 7 under 35 U.S.C. § 103(a) as unpatentable over Kroll and aWengen.

We REVERSE the Examiner's decision to reject claim 16 under 35 U.S.C. § 103(a) as unpatentable over Kroll and aWengen.

We REVERSE the Examiner's decision to reject claims 18 and 19 under 35 U.S.C. § 103(a) as unpatentable over Bushek.

We REVERSE the Examiner's decision to reject claim 50 under 35 U.S.C. § 103(a) as unpatentable over Ball.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART