NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

COOK GROUP INCORPORATED, COOK MEDICAL LLC,
Appellants

v.

BOSTON SCIENTIFIC SCIMED, INC.,
Cross-Appellant

2019-1413, 2019-1422

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2017-00135.

Decided: April 30, 2020

JEFFRY M. NICHOLS, Brinks Gilson & Lione, Chicago, IL, argued for appellants. Also represented by SARAH GOODMAN, LAURA A. LYDIGSEN, ANDREW MCELLIGOTT, JASON WAYNE SCHIGELONE.

DAVID A. CAINE, Arnold & Porter Kaye Scholer LLP, Palo Alto, CA, argued for cross-appellant. Also represented by MATTHEW WOLF, Washington, DC.

Before PROST, *Chief Judge*, DYK and O'MALLEY, *Circuit Judges*.

PROST, *Chief Judge*.

Cook Group Inc. and Cook Medical LLC (collectively "Cook") petitioned for inter partes review ("IPR") of several claims of U.S. Patent No. 8,974,371 ("the '371 patent"). The Patent Trial and Appeal Board ("Board") delivered a mixed result finding Cook had met its burden of showing that some claims are unpatentable as obvious, but that Cook had not met its burden of showing that other claims are unpatentable as either anticipated or obvious.

Cook appeals the Board's finding that claims 11–13, 15, and 17 are not unpatentable as either anticipated or obvious over the cited prior art. Boston Scientific Scimed, Inc. ("Boston") cross-appeals the Board's finding that claims 1, 3–5, and 10 are unpatentable as obvious over the cited prior art. With respect to Cook's appeal, we conclude that the Board's determination as to claims 11, 15, and 17 must be reversed due to an erroneous claim construction, but we affirm the Board's determination as to claims 12 and 13. On Boston's cross-appeal, we find no error in the Board's decision and affirm.

I

A

The '371 patent generally relates to hemostatic clips that are used to stop bleeding during surgical procedures. Claim 11 is representative for the purposes of this appeal:

> 11. An apparatus for applying clips to tissue within a living body, comprising:
>
> a capsule;
>
> a clip assembly housed within the capsule for movement between an insertion configuration in

> which first and second arms of the clip assembly are drawn toward one another and an expanded configuration in which the first and second arms are separated from one another to receive tissue therebetween;
>
> a control element including a connector element, extending between a proximal end which, during use, remains outside the body accessible to a user and a distal end removably connected to the clip assembly via the connector element, wherein the control element detaches from the connector element via a frangible link; and
>
> a sheath extending from a proximal to a distal end and covering a portion of the control element, wherein the distal end of the sheath is releasably coupled to the capsule.

'371 patent claim 11.

B

Relevant to our decision, Cook's petition for IPR asserted that claims 11 and 15 are anticipated under 35 U.S.C. § 102(b)[1] by "Adams"[2] and that claim 17 is rendered obvious under 35 U.S.C. § 103 by Adams combined with "Sackier."[3] Adams is directed to a "[m]edical device used to cause hemostasis of blood vessels using a clip arrangement delivered to a target region through an endoscope." J.A. 374. Among a variety of alternative

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[1] The claims at issue in this case have effective filing dates prior to March 16, 2013. We therefore apply pre-AIA § 102(b).

[2] U.S. Patent No. 8,685,048 B2, issued Apr. 1, 2014. *See* J.A. 374–411.

[3] U.S. Patent No. 5,749, 881, issued May 12, 1998. *See* J.A. 229–47.

embodiments, Adams discloses two embodiments that are relevant to this appeal: the "J-Hook Embodiment," and the "Ball-and-Socket Embodiment."

The J-Hook Embodiment includes a clip 101 having clip legs 102 and 103. J.A. 405 at col. 5 ll. 21–23; *see also id.* Figs. 1–7. As shown in Figure 3, the embodiment is further characterized by having cut-out 106 on the proximal end of clip 101. J.A. 405 at 378 (Fig. 3); *see also id.* col. 5 ll. 26–27. And as further shown in Figure 2, j-hook 107, which is formed on the distal terminal end of control wire 108, is inserted into cut-out 106. J.A. 405 at 377 (Fig. 2); *see also id.* col. 5 ll. 26–29. To permanently deploy clip 101, among other steps, j-hook 107 is pulled from cut-out 106 on the proximal side of clip 101. J.A. 405 at col. 5 ll. 52–59. Control wire 108 is then removed, leaving clip 101 in place. J.A. 405 at col. 5 ll. 59–63.

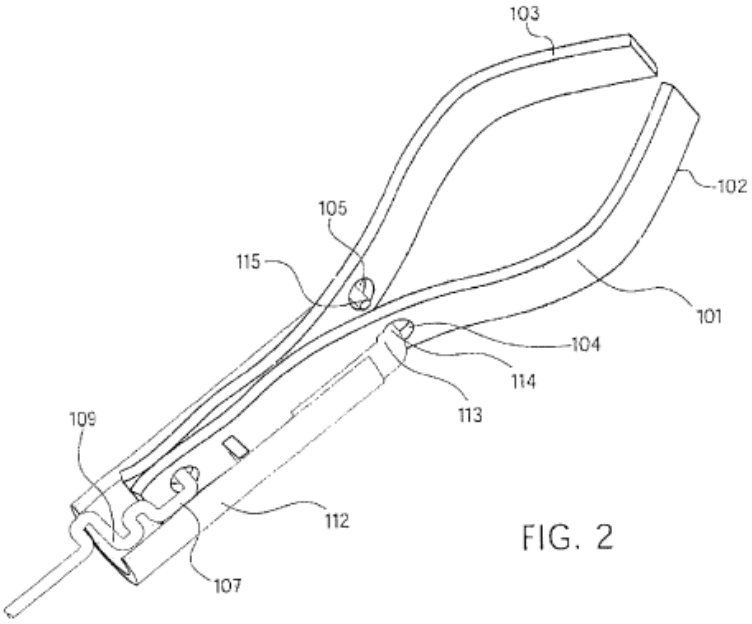

FIG. 2

J.A. 377.

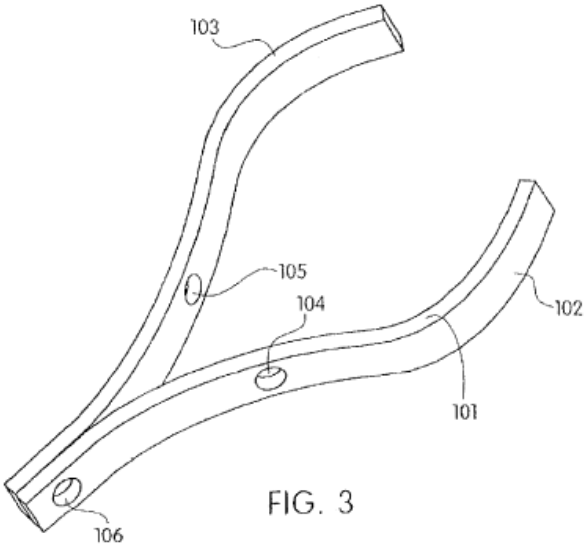

FIG. 3

J.A. 378.

The Ball-and-Socket Embodiment includes clip 1201. J.A. 407 at col. 9 ll. 46–64; *see also id.* at 390 (Figs. 12A & 12B). This embodiment is characterized by a ball 1202 that fits into a socket defined by socket tabs 1203. J.A. 407 at col. 9 ll. 47–49. Ball 1202 attaches the control wire 1207 to the clip 1201. J.A. 407 at col. 9 ll. 47–49. To release clip 1201, ball 1202 is pulled with the control wire 1207 from socket tabs 1203. J.A. 407 at col. 9 ll. 56–62.

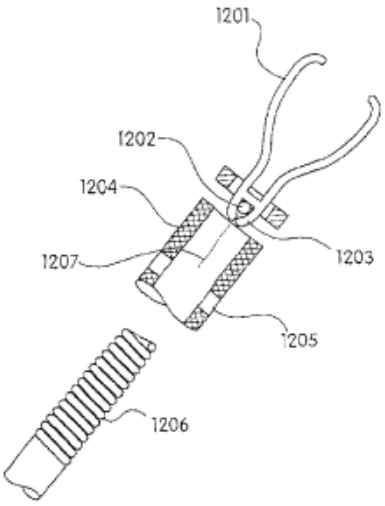

FIG. 12A

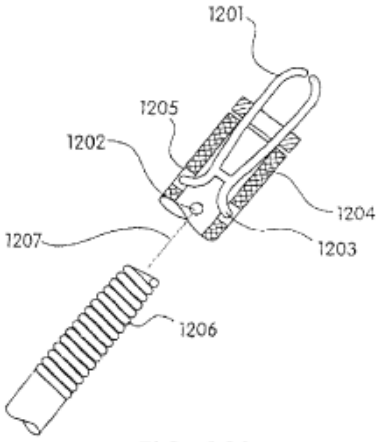

FIG. 12B

J.A. 390.

C

When Cook petitioned for IPR of the '371 patent, it alleged eleven grounds of unpatentability for various claims. *Cook Grp. Inc. v. Boston Scientific Scimed, Inc.*, No. IPR2017-00135, Paper 1 (P.T.A.B. Oct. 27, 2016) ("*Petition*"). Initially, the Board instituted on two grounds. However, following the Supreme Court's decision in *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018), which occurred after oral hearing but before the final written decision, the Board instituted on all petitioned grounds. The parties subsequently agreed to limit the proceeding to only certain grounds. Relevant to this appeal, the Board considered the following five grounds: (1) claims 11 and 15 are anticipated by Adams; (2) claim 17 is rendered obvious by Adams combined with Sackier; (3) claims 11, 15, and 17 are anticipated by Sackier; (4) claims 11–13 are anticipated by

"Kimura"[4]; (4) claims 1 and 3–5 are rendered obvious by Kimura; and (5) claim 10 is rendered obvious by Kimura combined with Sackier.

The Board permitted supplemental briefing and held a second oral hearing. In the final written decision, the Board delivered a mixed result, finding that Cook had met its burden of showing that claims 1, 3–5, and 10 are unpatentable as obvious, but that Cook had failed to meet its burden of showing that claims 11, 15, and 17 are either anticipated or obvious over any ground. *Cook Grp. Inc. v. Boston Scientific Scimed, Inc.*, No. IPR2017-00135, Paper 82 (P.T.A.B. Nov. 15, 2018) ("*Board Decision*").

The parties timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

II

We review the Board's factual findings for substantial evidence and the Board's legal conclusions, including claim construction, de novo. *IPCom GmbH & Co. v. HTC Corp.*, 861 F.3d 1362, 1369 (Fed. Cir. 2017). "Substantial evidence . . . means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

A

Cook appeals the Board's determination that Cook failed to show that claims 11–13, 15, and 17 are unpatentable as either anticipated or obvious over the cited prior art. We conclude the Board's determination that claims 11 and 15 are not anticipated by Adams, and that claim 17 is not obvious over Adams in view of Sackier, was based on erroneous claim construction and must be reversed. Because we conclude that, under a proper claim construction,

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[4] U.S. Patent Pub. No. 2002/0045909, published Apr. 18, 2002. *See also* J.A. 289–334.

Cook met its burden of showing that claims 11, 15, and 17 are anticipated by Adams, or obvious over Adams in view of Sackier, we do not reach Cook's argument that claims 11, 15, and 17 are anticipated by Sackier. With respect to claims 12 and 13, which Cook challenged as anticipated by Kimura, we affirm the Board's decision as supported by substantial evidence and as in accordance with the law.

We now specifically address the Board's determination that claims 11 and 15 are not unpatentable over Adams and that claim 17 is not unpatentable over Adams and Sackier. In its petition, Cook argued that the J-Hook Embodiment disclosed in Adams anticipates or renders obvious certain claims of the '371 patent. *Petition* at 26–31, 44. In relevant part, Cook argued that the "control element" and the "connector element" required by claim 11 are met respectively by j-hook 107 and cut-out 106. The Board, however, disagreed and found that the claims are not unpatentable over Adams because cut-out 106 is not a "connector element" within the context of claim 11.

First, the Board quoted the relevant limitation of claim 11, which recites:

> a control element including a connector element, extending between a proximal end which, during use, remains outside the body accessible to a user and a distal end removably connected to the clip assembly via the connector element where in the control element detaches from the connector element via a frangible link. . . .

Board Decision at 24 (citing '371 patent col. 18 ll. 10–15). The Board then considered the prosecution history of that limitation. The Board noted that during prosecution, the examiner cited Adams, and specifically its Ball-and-Socket Embodiment, as prior art. Applicants overcame the rejection by amending the claims to require "a control element including a connector element" wherein "the control element detaches from the connector element via a frangible

link." *Id*. at 27. In arguments submitted with the amendment, the applicants differentiated the claimed invention from Adams's Ball-and-Socket Embodiment based on the failure of Adams's ball 1202 (i.e., the connector element) to be separated from the control wire 1207 (i.e., the control element) when the control element is released from the clip. Applicants argued that because the control element and the connector element were not separated, Adams did not disclose a control element having a frangible link as required by the claim language that issued as claim 11.

Based on these prosecution statements related to Adams' Ball-and-Socket Embodiment, the Board found that cut-out 106 in the J-Hook Embodiment does not teach a connector element as recited by claim 11. The Board stated that "the statements in the prosecution history distinguish the claimed invention from the prior art on the basis of the location of the frangible link in relation to the control element and the connector element" and therefore concluded that "the connector element is not part of the clip arms." *Board Decision* at 28. Because cut-out 106 is located at the proximal end of the clip, the Board concluded that it did not disclose the recited connector element. *Id*. at 27–28. The Board also noted that because the claim language requires that the control and connector elements detach, then it could infer that those elements must first be attached. *Id*. at 29. The Board did not discuss whether the control element and the connector element in Adams's J-Hook Embodiment are attached when j-hook 107 is inserted into cut-out 106.

On appeal, Cook argues that the Board erred in concluding that the connector element could not be located on the clip. Cook argues that no limitation in claim 11, nor any description in the specification, restricts the location of the connector element with respect to the clip. Cook further argues that nothing in the prosecution history, including the excerpts relied on by the Board, describe the location of the connector element with respect to the clip.

Instead, these prosecution statements merely describe the relationship between the control element and the connector element by emphasizing that the control element and the connector element must at some point detach. According to Cook, if claim 11 is properly read to permit a connector element that is part of the clip, then there is no dispute that Adams's J-Hook Embodiment discloses a connector element as required by claim 11.

In response, Boston argues that the plain language of claim 11 and the applicants' statements in the prosecution history support the Board's decision. Boston summarily argues that the Board's determination that the connector element could not be a part of the clip is supported by claim 11's language requiring the control element to be "removably connected to the clip assembly via the connector element" and also requiring that the connector element "detach[]" from the control element via a frangible link. Boston then argues that the '371 patent's prosecution history supports the Board's decision because in arguing that Adams's Ball-and-Socket Embodiment did not include a "connector element," "the applicants specifically referenced not only ball 1202 but also clip 1201." Appellee's Br. 45.

We conclude that the Board erred in its construction of claim 11's "connector element" when it determined that the element could not be a part of the clip arms. *See Board Decision* at 28. We agree with Cook that nothing in the plain language of claim 11, nor anything in the specification of the '371 patent, preclude the "connector element" from being a part of the clip, whether the clip arms or the clip assembly. Indeed, claim 11 only requires that the control element "include" a connector element that may be detached via a frangible link. Although the term "connector element" never appears in the '371 patent's specification, the express language of claim 11 clearly requires that the "connector element" connect the control element with the clip. The applicants' statements during prosecution inform us that the "connector element" must detach from the

control element, but these statements are silent as to the connector element's relationship to the clip.

Adams's disclosure of the J-Hook Embodiment is consistent with the plain language of claim 11 and the '371 patent's prosecution history. In the J-Hook Embodiment, the control element is first attached to the connector element. Indeed, Adams clearly explains that in the J-Hook Embodiment, control wire 108 is attached to the clip by insertion through cut-out 106. J.A. 405 at col. 5 ll. 27–28. And in the J-Hook Embodiment, the control element detaches from the connector element. As Adams also clearly explains, in the J-Hook Embodiment, control wire 108 is detached from cut-out 106 when j-hook 107 is pulled from cut-out 106. J.A. 405 at col. 5 ll. 58–59.

Without any disclosure in the '371 patent's claim language or prosecution history precluding the placement of the connector element as part of the clip, it was error for the Board to add such a limitation to claim 11's connector element. Relying on this erroneous construction, the Board incorrectly determined that the J-Hook Embodiment disclosed in Adams does not anticipate or render obvious claims 11, 15, and 17. Under the correct construction, we determine that Cook has met its burden to show that claims 11 and 15 are anticipated by Adams, and that that claim 17 is rendered obvious by Adams in view of Sackier. We therefore reverse the Board's decision with respect to those claims.[5]

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[5] In a footnote, Boston argues that if we reverse the Board's decision on claim 11, we should remand as to claim 17. Even were a footnote sufficient to preserve Boston's argument, which it is not, *see SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006), Boston failed to point to any material disputed fact warranting remand.

B

Boston cross-appeals the Board's determination that Cook met its burden of proving that claims 1 and 3–5 are unpatentable as obvious over Kimura and that claim 10 is unpatentable as obvious in view of Kimura and Sackier. We conclude that the Board's decision as to these claims is in accordance with the law and supported by substantial evidence. We therefore affirm as to all issues raised in Boston's cross-appeal.

III

In sum, we reverse the Board's decision regarding the patentability of claims 11, 15, and 17. We affirm the Board's decision in all other aspects.

AFFIRMED IN PART AND REVERSED IN PART

COSTS

The parties shall bear their own costs.