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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ERIK SEBASTIAN SOJKA, ARTHUR G. STEPHEN, ANDRE FRANCISCO-GUILHERME, MARK W. WOLFSON, BRIAN HENRI OTRANDO, DANIEL PAUL GAMACHE, and JUSTIN M. PICCIRILLO

> Appeal 2018-004258¹ Application 15/046,855² Technology Center 3700

Before MURRIEL E. CRAWFORD, JOSEPH A. FISCHETTI, and KENNETH G. SCHOPFER, *Administrative Patent Judges*.

SCHOPFER, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the rejection of claims 1–6 and 16–18. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

¹ Our decision references the Appeal Brief filed Sept. 18, 2017 ("Br."), the Examiner's Answer mailed Jan. 11, 2018 ("Ans."), and the Final Office Action mailed Feb. 15, 2017 ("Final Act.").

² According to Appellants, the real party in interest is "DePuy Mitek, LLC which is a subsidiary of Johnson & Johnson." Br. 2.

BACKGROUND

According to Appellants, the "application relates to suture anchors and more particularly to knotless suture anchors." Spec. ¶ 1.

ILLUSTRATIVE CLAIM

Claim 1 is the only independent claim on appeal and recites:

1. A suture anchor assembly comprising:

a suture anchor comprising a tubular body having an axial bore therethrough

one or more purchase enhancements on an exterior surface of the body adapted to enhance purchase of the body within a bone hole;

a lateral port through the body from the bore to the exterior surface; and

a driver engaged to a proximal portion of the body and a suture passer comprising an elongated flexible member passing along the driver, along an exterior of the body at its proximal portion, through the lateral port and into the axial bore with a distal end of the suture passer extending out of a distal section of the axial bore and bearing a suture engager.

Br. 8, (Claims App.).

REJECTIONS

- The Examiner rejects claims 1, 2, 4–6, and 16–18 under 35 U.S.C.
 § 103(a) as unpatentable over Caspari³ in view of Nobles.⁴
- 2. The Examiner rejects claim 3 under 35 U.S.C. § 103(a) as unpatentable over Caspari in view of Nobles and Rahmani.⁵

³ Caspari et al., US 6,290,711 B1, iss. Sept. 18, 2001 ("Caspari").

⁴ Nobles et al., US 2007/0010829 A1, pub. Jan. 11, 2007 ("Nobles").

⁵ Rahmani, US 2009/0204147 A1, pub. Aug. 13, 2009.

- 3. The Examiner rejects claims 1, 2, 6, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over Stokes⁶ in view of Nobles.
- 4. The Examiner rejects claim 3 under 35 U.S.C. § 103(a) as unpatentable over Stokes in view of Nobles and Rahmani.

DISCUSSION

Caspari in view of Nobles

Claims 1, 2, and 4

With respect to claim 1, the Examiner finds that Caspari discloses a suture anchor as claimed except for the claimed suture passer, for which the Examiner relies on Nobles. *See* Final Act. 2–3. More specifically, the Examiner finds that Caspari teaches a tubular body with an axial bore 23 and purchase enhancements 21. *Id.* The Examiner also finds that Caspari's device is capable of being used for implantation into the bone in which case the threads 21 would be adapted to enhance purchase of the body within a bone hole, as claimed. *Id.* at 9–10.

We agree with and adopt the Examiner's findings with respect to the rejection of claim 1 here. *See* Final Act. 2–3, 9–10; *see also* Ans. 4–5. As discussed below, we are not persuaded of reversible error in the rejection of claim 1 here.

Appellants first argue that Caspari fails to teach purchase enhancements as claimed. Br. 3. In support, Appellants argue that when Caspari's nut is in the locking position and the device is deployed via the driver there is no way for the threads 21 to engage a bone hole. *Id.*Appellants also argue that Caspari teaches "that the threaded portion 21 is

⁶ Stokes et al., US 2007/0270907 A1, pub. Nov. 22, 2007 ("Stokes").

broken off as the nut moves to . . . [the locking] position by breaking the frangible connection 241," and thus, when the device is employed as taught by Caspari, "there are no threads exposed for engaging a bone hole." *Id.* at 4. We are not persuaded of error. The Examiner relies on threads 21 as the claimed purchase enhancements, which extend either above or below the nut depending on the position of the nut. *See* Caspari Figs. 1, 2. Appellants do not explain adequately why the threads 21 cannot be the claimed purchase enhancements, as explained by the Examiner. *See* Ans. 4–5. Even though a portion of the device may be broken off when used as described in Caspari, Appellants do not explain how any structure, including the claimed purchase enhancements, is missing from the combination of art relied upon.

Further, to the extent that Appellants' indicate that Caspari's "blunt threads" are not adapted to enhance purchase of the body within a bone hole, we are not persuaded. Although "the phrase 'adapted to' generally means 'made to,' 'designed to,' or 'configured to,' ... it can also be used more broadly to mean 'capable of' or 'suitable for." *In re Man Machine Interface Techs. LLC*, 822 F.3d 1282, 1286 (Fed. Cir. 2016) (citing *In re Giannelli*, 739 F.3d 1375, 1379 (Fed. Cir. 2014)). We determine that this is the case here. The Specification does not provide any meaningful limitation on how a purchase enhancement may be adapted to enhance purchase. Rather, the Specification merely lists examples of such enhancements, which include at least one screw thread, a multi-fluted external thread, thread with "a rounded or blunted profile," or "other purchase enhancements appropriate for a push-in anchor versus a threaded anchor." Spec. ¶¶ 5, 39. Thus, we find that the Examiner interpretation of the claim as requiring purchase enhancements

that are *capable of* enhancing purchase of the body within a bone hole is consistent with the broadest reasonable interpretation of the claim.

Finally, Appellants argue that Caspari fails to disclose a tubular body with an axial bore as claimed. Br. 4. We are not persuaded of error for the reasons provided by the Examiner. *See* Ans. 5. Specifically, we agree that Caspari discloses a tubular body, and, without further explanation from Appellants, we agree that the claim does not require that the axial bore extend the entire length of the body.

Based on the foregoing, we are not persuaded of error in the rejection of claim 1 over Caspari and Nobles. Accordingly, we sustain the rejection of claim 1 here. We also sustain the rejection of dependent claims 2 and 4, for which Appellants do not provided separate arguments.

Claim 5

Claim 5 ultimately depends from claim 1 and requires that "a proximal portion of the body carries a multi-fluted external thread." Br. 8. The Examiner finds that Caspari teaches a multi-fluted external thread 28. Final Act. 4. The Examiner indicates that the multiple longitudinal grooves in between the thread projections make the thread multi-fluted. Ans. 6. Appellants argue that Caspari does not describe this thread as being multi-fluted and that this portion of the device is broken off when deployed. Br. However, Appellants neither explain adequately why Caspari's thread 28 may not be considered multi-fluted nor do they explain why it matters, with respect to the rejection, whether or not this portion of the device is broken off. Accordingly, we sustain the rejection of claim 5 here.

Claim 6

Claim 6 depends from claim 1 and further requires "an engagement between the driver and the suture anchor to allow the suture anchor to be torqued into a bone by the driver." Br. 8. The Examiner finds that Caspari teaches such an engagement. Final Act. 4. We agree with Appellants that the Examiner has not explained adequately how the driver would engage the suture anchor such that it may be torqued into a bone. See Br. 4. Caspari explains that the driver 52 is a nut driver that drives nut 30 into the locking position before it is removed and the frangible attachment is broken. See Caspari, col. 6, ll. 61—col. 7, ll. 7. The Examiner indicates that Caspari would meet the requirements of claim 6 where the driver rotates both the nut and the body inside a bone hole. However, as shown in Figure 4, it is unclear how any portion of the device would be engaged in a bone hole with the driver as depicted. Further, when the nut is in the locked position, it is not clear that the driver would be capable of torqueing the anchor into bone rather than simply breaking the frangible attachment. Accordingly, we are persuaded of error, and we do not sustain the rejection of claim 6 here.

Claim 16

Claim 16 depends from claim 1 and requires that "a distal end of the body tapers whereby to ease insertion of the anchor body into the bone hole." Br. 9. The Examiner identifies the taper within the axial bore of Caspari's body as the claimed taper. Final Act. 4. The Examiner also explains that Caspari's anchor is fully capable of being used for implantation into bone. Ans. 7. However, we are persuaded of error because the Examiner fails to account for the plain meaning of the claim that requires that the taper is present to ease insertion of the anchor body into the bone

hole. Even if this language is considered an intended use of the taper (*see* Ans. 7), it nonetheless provides a structural requirement in that the body must have a taper where the taper itself is capable of performing the claimed function, i.e. the taper must be used to ease insertion into a bone hole. The identified taper *within* the axial bore of Caspari's body is not capable of performing this function. Accordingly, we do not sustain the rejection of claim 16 here.

Claim 17

Claim 17 depends from claim 1 and requires that "the purchase enhancements comprise annular flanges about the body." Br. 9. The Examiner finds that the Caspari's threads 21 are annular flanges. Final Act. 5. The Examiner explains that the threads "are rings that project or protrude outward to some degree," and thus, they may be considered flanges. Ans. 8. Appellants argue only that "[t]hreads are not annular flanges." Br. 5. Appellants' assertion, without more, does not persuade us of error in the Examiner's unrebutted findings presented in the Answer. Accordingly, we sustain the rejection of claim 17 here.

Claim 18

Claim 18 depends from claim 1 and requires that "at least a portion of the one or more purchase enhancements are located proximally of the lateral port." Br. 9. The Examiner finds that the proximal portion of Caspari's device is located below the lateral port, as shown in Figure 2. Final Act. 5. Appellants argue only that "the portion of the device proximal of the nut is broken off." Br. 5. We are not persuaded of error. Caspari discloses threads 21 that extend both above and below the lateral port 26. *See* Caspari Fig. 1. Accordingly, we sustain the rejection of claim 18 here.

Caspari in view of Nobles and Rahmani

Appellants do not provide separate arguments regarding the rejection of claim 3 over Caspari in view of Nobles and Rahmani. *See* Br. 6. Thus, because claim 3 depends from claim 1, we also sustain the rejection of claim 3 here for the reasons discussed above.

Stokes in view of Nobles

We are persuaded of reversible error in the rejection of independent claim 1 over Stokes in view of Nobles. Here, we agree with Appellants that the Examiner has not identified purchase enhancements in Stokes's device that are adapted to enhance purchase of the body within a bone hole. See Br. 5. The Examiner identifies indentations 39 as the purchase enhancements in Stokes. See Final Act. 5–6. As discussed above, the claim requires only that such purchase enhancements are capable of enhancing purchase of the body within a bone hole. However, we agree with Appellants that the indentations in Stokes are not capable of enhancing purchase of the body within a bone hole because they "would be prevented from even touching the bone hole wall by the larger diameter flange . . . [31] at one end and the outer locking member 64 at the other end." Br. 5. The Examiner asserts that the Stokes's device may be disengaged from the driver/locking member 64 and placed in a bone hole with the flange 31 sticking out of the bone hole, in which case the indentations 39 would enhance purchase of the body within a bone hole. Ans. 9. However, the Examiner has not explained adequately how the device is capable of insertion into a bone hole in this manner, i.e. without the identified driver attached.

Based on the foregoing, we are persuaded of error in the rejection of claim 1 over Stokes in view of Nobles. Accordingly, we do not sustain the

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rejection of claim 1 here. We also do not sustain the rejection of dependent claims 2, 6, 16, and 17.

Stokes in view of Nobles and Rahmani

The rejection of claim 3 over Stokes in view of Nobles and Rahmani does not cure the deficiency in the rejection of claim 1 over Stokes in view of Nobles. Accordingly, for the reasons discussed above, we also do not sustain the rejection of claim 3 here.

CONCLUSION

We AFFIRM the rejections of claims 1–5, 17, and 18 over Caspari in view of Nobles. We REVERSE the rejection of claims 6 and 16 over Caspari in view of Nobles; we REVERSE the rejection of claims 1, 2, 6, 16, and 17 over Stokes in view of Nobles; and we REVERSE the rejection of claim 3 over Stokes in view of Nobles and Rahmani.

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