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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* DAVID R. DIDUCH, MARK H. GETELMAN, JACOB  
A. MARKS, GEROME MILLER, MATTHEW J. RAVENSCROFT,  
MEHMET Z. SENGUN, HOWARD C. TANG, PAUL P. WEITZEL, and  
GREGORY R. WHITTAKER

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Appeal 2019-004568  
Application 14/610,602  
Technology Center 3700

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Before MICHAEL J. FITZPATRICK, WILLIAM A. CAPP, and  
PAUL J. KORNICZKY, *Administrative Patent Judges*.

FITZPATRICK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from the Examiner's  
final decision rejecting claims 1–6, 9, 11, 12, 29, 30, 32, and 33. We have  
jurisdiction under 35 U.S.C. § 6(b).

We affirm in part.

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<sup>1</sup> Appellant identifies “Medos International SARL of Le Locle, Switzerland,  
a Johnson & Johnson company (“Medos”)” as the real party in interest, by  
virtue of an assignment from the applicant DePuy Synthes Products, Inc. to  
Medos. Appeal Br. 1.

STATEMENT OF THE CASE

*The Specification*

The Specification's disclosure relates to surgical devices and methods for anchoring tissue to bone, and more particularly for securing a biceps tendon to the humerus. Spec. ¶2.

*The Claims*

Claims 1–6, 9, 11, 12, 29, 30, 32, and 33 are rejected. Final Act. 1. A rejection of claim 31 was withdrawn. Ans. 7. The only other pending claims, namely claims 7, 8, 10, and 13, have been withdrawn from consideration. Final Act. 1. Claims 1 and 29 are illustrative and reproduced below.

1. An anchor assembly for anchoring a tendon to bone, comprising:

a sheath having a substantially solid distal end with only two sidewalls extending proximally therefrom and separated by first and second slots, a width between the slots decreasing toward the substantially solid distal end, the sidewalls defining an inner lumen therebetween, and the solid distal end of the sheath having a mating feature;

a guidewire having a distal tip configured to releasably mate with the mating feature in the sheath, the guidewire extending proximally from the sheath when mated thereto; and

an expander having a generally elongate cylindrical configuration, tapered distally along a distal portion, and configured to be received within the inner lumen of the sheath, the expander having a lumen extending therethrough for receiving the guidewire.

29. An anchor assembly for anchoring a tendon to bone, comprising:

a sheath having a substantially solid distal end,

two sidewalls extending proximally from the distal end, the sidewalls being separated by at least two slots, a width between the slots decreasing toward the substantially solid distal end, and the sidewalls defining an inner lumen therebetween,

at least one of anti-plunge tab extending from a proximal-most end of the sheath adjacent to at least one of the slots, the at least one anti-plunge tab preventing over-insertion of the sheath into a bone hole, and

at least one retaining tab extending from the sheath at a location distal to the at least one anti-plunge tab, the at least one retaining tab being positioned a distance apart from the at least one anti-plunge tab, the distance being configured such that when the at least one anti-plunge tab is positioned on a proximal surface of a cortical bone, the at least one retaining tab will extend beneath a distal surface of the cortical bone; and

an expander configured to be received between the at least two sidewalls on the sheath to cause the sheath to expand and engage bone.

Claims App. A–C.

### *The Examiner's Rejections*

The following rejections, all under 35 U.S.C. § 103, are before us:

1. claims 1–3, 6, 9, 11, and 12 as unpatentable over Lunn,<sup>2</sup> Lemos,<sup>3</sup> and Cochran<sup>4</sup> (*id.* at 2);
2. claims 4 and 5 as unpatentable over by Lunn, Lemos, Cochran, and Bickley<sup>5</sup> (*id.* at 4); and
3. claims 29, 30, 32, and 33 as unpatentable over by Lunn, Lemos, and Bickley (*id.* at 5).

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<sup>2</sup> US 2009/0112270 A1, published Apr. 30, 2009 (“Lunn”).

<sup>3</sup> US 2004/0068262 A1, published Apr. 8, 2004 (“Lemos”).

<sup>4</sup> US 3,103,926, issued Sept. 17, 1963 (“Cochran”).

<sup>5</sup> US 2004/0176767 A1, published Sept. 9, 2004 (“Bickley”).

## DISCUSSION

### *Rejection 1—Claims 1–3, 6, 9, 11, and 12*

Appellant argues claims 1, 2, 9, 11, and 12 together. Appeal Br. 9–13. For these claims, we select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appellant presents separate arguments for each of claims 3 and 6 (Appeal Br. 13–15), which arguments we likewise address separately below.

### Claims 1, 2, 9, 11, and 12

The Examiner finds that Lunn discloses substantially all of the subject of matter of claim 1, except that “Lunn fails to disclose the device wherein the first and second slot taper distally and wherein the device further comprises a guidewire threaded into the distal end of the sheath.” Final Act. 2–3. The Examiner relies on Lemos as teaching the taper limitation and Bickley as teaching the guidewire limitation. *Id.* at 3–4. The Examiner concluded that a person of ordinary skill in the art would have modified Lunn in view of Lemos and Bickley. *Id.*

Appellant argues a lack of “motivation” for either modification of Lunn, that each modification would render Lunn inoperable, and that “tapered slots are not an obvious design choice.” Appeal Br. 10. We do not find any of Appellant’s arguments to be persuasive of Examiner error.

With respect to the Examiner’s proposed modification of Lunn in view of Lemos, Appellant argues that there would not have been any motivation for doing so because “Lemos merely discloses that the sidewalls may form a ‘V-shaped structure’ but does not provide any advantages to using such a structure.” Appeal Br. 13 (quoting Lemos ¶24). However, Lemos does provide advantages. *See* Lemos ¶24 (“The prong portions 3 and

the ridge 5 may form a V-shaped structure, which is compressible during insertion so that the free ends of the prong portions 3 are movable towards each other.”). And, because Lunn and Lemos are directed to similar devices, the advantage Lemos teaches would have been recognized as readily transferable to Lunn. *Compare* Lemos ¶1 (“The present invention relates to bioabsorbable surgical implants, which are used to fix tissue grafts to hard tissue, such as bone, and a method for inserting such implants in a patient.”), *with* Lunn ¶3 (“The present disclosure relates to tissue repair, and more specifically, to an anchor assembly for securing tissue to bone.”). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). Appellant has not shown that modifying Lunn in view Lemos yields more than a predictable result.

In regard to its inoperability argument, Appellant argues that “[t]he addition of a taper [to Lunn’s sheath (i.e., anchor 20)] would either prevent the suture from properly seating within the slot at least [at] the distal end, or would render the proximal portion of the slot unnecessarily wide for its intended purpose (which could further interfere with the structural integrity of the anchor).” Appeal Br. 13. This argument is not supported by any evidence and thus constitutes naked attorney argument. *See id.* (no citation to evidence provided).

In the Answer, the Examiner notes the lack of supporting evidence. *See* Ans. 9 (“[A]rgument is not supported by an appropriate affidavit or declaration and cannot take the place of evidence in the record.”). Appellant does not provide any evidence in reply but rather explicitly relies on “a

common sense reading of the evidence in the record.” Reply Br. 3. But common sense works in both directions, and a person of ordinary skill in the art has at least common sense. *See Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009). (“[W]hile an analysis of obviousness always depends on evidence that supports the required Graham factual findings, it also may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference or expert opinion.”); *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (“[T]he common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.”); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

Even if Appellant had shown that bodily incorporating Lunn’s specific taper configuration into Lemos would result in either of the two unacceptable outcomes Appellant identifies (which Appellant has not shown), such a finding would not lead to non-obviousness. *See In re Keller*, 642 F.2d 413, 425 (C.C.P.A. 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.”). In such a scenario, a person of ordinary skill in the art, incorporating the proposed modification into Lunn, readily could have applied her ordinary creativity and common sense to avoid either unacceptable outcome. For example, a person of ordinary skill in the art

certainly would have the sense to make a further modification to allow a suture to seat properly at the distal end of the slot, such as by using a narrower gauge suture.

With respect to the Examiner's proposed modification of Lunn in view of Cochran, Appellant argues there would have been no motivation for doing so because "[a] guidewire would . . . serve no purpose" and "provide[] no advantage." Appeal Br. 11. This is so, Appellant argues, because Lunn's anchor 20 is positioned with its proximal end at the surface of the bone and, thus, "is readily accessible and visible" unlike Cochran's anchor 10, which is positioned deeper within a bone such that its proximal end is beneath the bone's surface. *Id.* (citing Lunn Fig. 4C; Cochran Fig. 4). Although we agree with Appellant that a guidewire is "unnecessary" in Lunn, Appellant has not shown that a guidewire would "serve no purpose" and "provide[] no advantage." Appeal Br. 11. The Examiner's reasoning for the modification was "to ease implantation of the device." Final Act. 3–4. The Examiner elaborated in an Advisory Action:

[T]he components of the invention are extremely small and adding a guidewire that could be configured to guide screw element 30 down and into the anchor would ease implantation of the device since the surgeon would be less likely to possibly drop and/or lose the screw element 30 while trying to insert and screw the element into sheathe 20. Furthermore, the guide wire could be configured to help the surgeon align and insert the sheathe 20 along a desired axis in the bone prior to drilling the anchor into the bone. There are many reasons a guidewire could be incorporated into the invention to ease implantation of the device.

Advisory Act. 2; *see also* Ans. 7–8. We find this reasoning adequate to show that a person of ordinary skill in the art would have incorporated a guidewire as taught by Cochran into the anchor of Lunn.

In regard to its inoperability argument, Appellant points out that “Lunn discloses that the anchor is placed into a previously drilled hole and the end of the anchor is *tapped* to advance the anchor into the bone hole.” Appeal Br. 11 (citing Lunn ¶21); Lunn ¶21 (“The anchor 20 is advanced into the hole 50 in an axially-oriented manner by tapping on the end of a delivery tool (not shown) that is used to deliver the anchor 20 into the hole 51.”).

Based on that disclosure, Appellant argues:

Use of the guidewire of Cochran during insertion of the anchor in the method of Lunn, as proposed by the Examiner, would prevent one from tapping on the delivery tool during placement of the anchor in the bone hole because the guidewire would either extend through the delivery tool and interfere with tapping of the proximal end of the tool, or would prevent attachment of the delivery tool altogether. As such, Lunn’s anchor could not be implanted in bone if it were modified to incorporate the guidewire of Cochran.

Appeal Br. 11. This argument is not supported by any evidence and thus constitutes naked attorney argument. *See id.* (no citation to evidence provided).

In the Answer, the Examiner notes the lack of supporting evidence. *See Ans. 9* (Appellant’s argument “is not supported by an appropriate affidavit or declaration and cannot take the place of evidence in the record.”). Appellant does not provide any evidence in reply. *See Reply Br. 3–4*. Rather, Appellant argues that “[t]he Examiner has not explained how a guidewire could be added to Lunn other than simply bodily incorporating the guidewire into the device.” *Id.* at 4. Even assuming Cochran’s guidewire were bodily incorporated into Lunn, Appellant’s attorney arguments regarding the inoperability of such a device remain attorney arguments.

We have considered Appellant's arguments, but find none of them persuasive of Examiner error. Accordingly, we affirm the rejection of claim 1, along with that of claims 2, 9, 11, and 12, which fall therewith. *See* 37 C.F.R. § 41.37(c)(1)(iv).

### Claim 3

Claim 3 recites: "The anchor assembly of claim 1, wherein the sheath includes at least one anti-collapse tab formed on at least one of the sidewalls adjacent to one of the first and second slots, the at least one anti-collapse tab being configured to limit movement of the sidewalls toward one another." Claims App. A.

The Examiner found that the backwall of Lunn's slots 29 teach this feature. Final Act. 2. The Examiner cites a dictionary defining a "tab" as "a small insert, addition, or remnant." Ans. 9. The Examiner explains that "[t]he backwall of the slots (29) is a remnant or the body left from the forming of the slots." *Id.* The Examiner's interpretation is unreasonably broad because it is not consistent with the Specification, which describes the tab as a structure beyond the sidewall itself or at least a portion of the sidewall having "an increased thickness." *See, e.g.,* Spec. ¶7. Further, the Examiner's construction would render the limitation of claim 3 meaningless, which is a disfavored result. *See Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 29 (1997) ("Each element contained in a patent claim is deemed material to defining the scope of the patented invention."); *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("[C]laims are interpreted with an eye toward giving effect to all terms in the claim."); *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 296 F.3d 1106, 1115 (Fed. Cir. 2002) (proposed construction that rendered a portion of the claim

language meaningless held improper). Notably, the Examiner did not reject claim 3 for failing to comply with 35 U.S.C. § 112(d), which requires that “a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.”

For the foregoing reasons, we reverse the rejection of claim 3.

### Claim 6

Claim 6 recites: “The anchor assembly of claim 1, wherein a distal-facing end of the sheath is concave for seating a tendon.” Claims App. A.

The Examiner found that Figure 2 of Lunn discloses such an end. Final Act. 2. The Examiner’s finding is in error. The surface to which the Examiner points in Lunn, although near the end of the sheath, is not the “end of the sheath,” as recited in claim 6. Lunn Figure 2 and Applicant’s Figure 2 are reproduced below, left and right respectively, and with annotations.

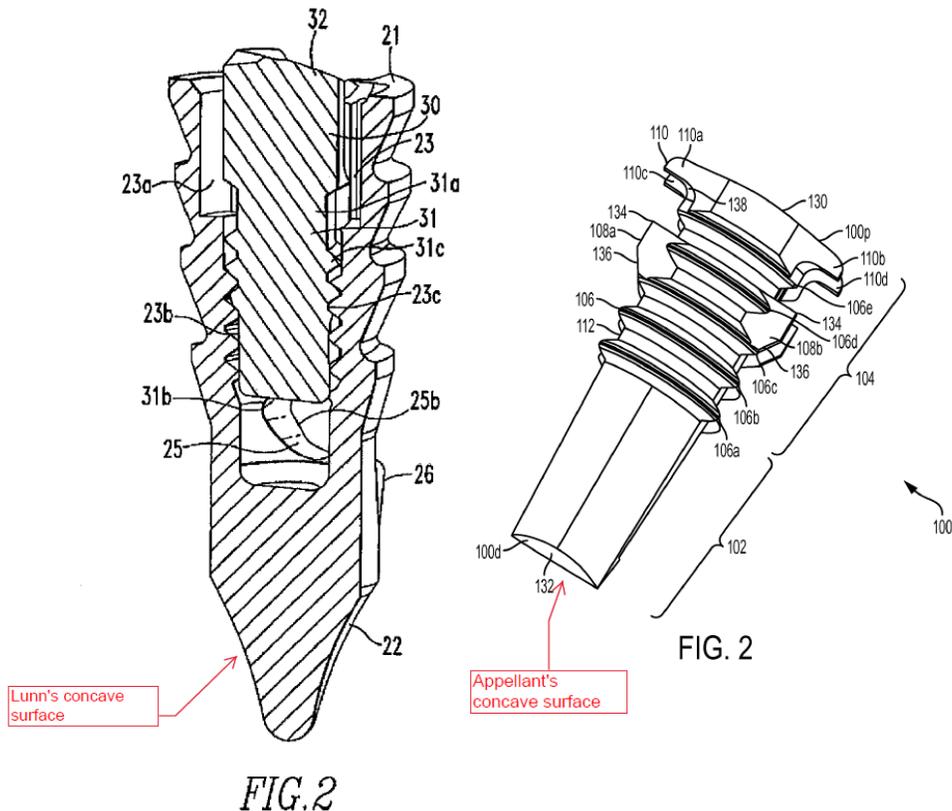


Figure 2 of Lunn, reproduced above left, shows a concave surface (annotated) near the distal-facing end of the anchor/sheath. The Examiner asserts that this feature meets claim 6. However, as can be readily seen, the actual distal-facing end of the Lunn’s anchor/sheath is convex (i.e., downward-facing surface in the orientation of Figure 2). In contrast, Figure 2 of the Specification, reproduced above right, shows a concave surface at the distal-facing end of the sheath.

For the foregoing reasons, we reverse the rejection of claim 6.

*Rejection 2—Claims 4 and 5*

Claim 4 recites: “The anchor assembly of claim 1, wherein the sheath includes at least one anti-plunge tab extending radially outward from a proximal-most end thereof and configured to limit an insertion depth of the sheath into a bone hole.” Claims App. A.

Claim 5 recites: “The anchor assembly of claim 4, wherein the sheath includes at least one retaining tab extending radially outward from the sheath at a predetermined distance from the at least one anti-plunge tab, the distance being configured such that the at least one anti-plunge tab can be positioned on a proximal surface of cortical bone and the at least one retaining tab can be positioned on a distal surface of the cortical bone.”

The Examiner’s rejection relies on Bickley as teaching both an anti-plunge tab (in the form of collar 20) and a retaining tab (in the form of flange 50). Final Act. 4 (citing Bickley “Figure 1” *but see* Figs. 1A–C); *see also* Bickley ¶41 (“The sleeve 10 has a collar 20 disposed on a first end thereof. . . . A flange 50 is disposed on a second end of the sleeve 20.”).

Claim 4

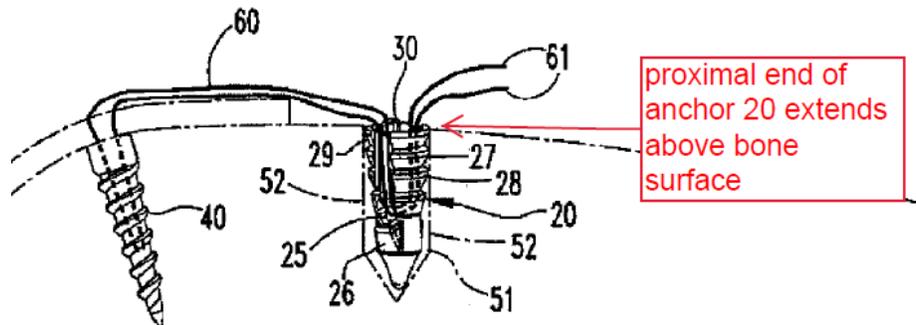
Appellant argues that a person of ordinary skill in the art would not have included Bickley's collar 20 in Lunn's anchor because Lunn's anchor "is fully visible to the user during the insertion procedure." Appeal Br. 16. But, the advantage of using collar 20 taught by Bickley is not limited to maintaining visibility of the anchor/sleeve. Rather, Bickley explicitly teaches that it used to prevent the anchor/sleeve from moving distally when a screw/expander is being driven into it. Bickley ¶41 ("The collar at the first or proximal end of the sleeve prevents advancement of the FAD into the hole with screw insertion."). Such a benefit is directly applicable to Lunn's anchor, which Appellant observes is "positioned adjacent to the *surface* of the bone." Appeal Br. 10.

Appellant also argues that Lunn's anchor is designed to be not merely adjacent to the bone surface but "flush" with it, and that the addition of Bickley's collar "would interfere with the soft tissue." *Id.* at 16. This argument is not supported by any evidence and thus constitutes naked attorney argument. *See id.* (no citation to evidence provided).

In the Answer, the Examiner notes the lack of supporting evidence. *See* Ans. 10 ("[T]he applicant's argument that the Lunn reference needs to be flush with a bone surface and would not need an anti-plunge tab is not supported by an appropriate affidavit or declaration and cannot take the place of evidence in the record."). On reply, Appellant argues "Figures 4A–4D of Lunn clearly show the anchor of Lunn as sitting flush with respect to the surface of the bone." Reply Br. 5.

The Examiner has the better position. The cited Lunn figures are low quality and appear to include hand-drawn features. *See* Lunn Figs. 4A–4D.

Further, they do not “clearly show” a flush configuration. A magnified partial view of Lunn Figure 4D is reproduced below with our annotation.



As indicated by our annotation, the magnified partial view of Lunn Figure 4D, reproduced above, shows the proximal end of anchor 20 extending above the bone surface. Lunn shows the same slight extension in Figures 4B and 4C; Figure 4A is not relevant because it shows the anchor prior to insertion in the bone.

In sum, Lunn neither describes nor illustrates a “flush” configuration. Accordingly, we affirm the rejection of claim 4.

#### Claim 5

Appellant argues that Bickley’s flange 50 is not a retaining tab within the meaning of claim 5 because, although it extends radially outward from the anchor/sleeve, it does not do so “at a predetermined distance from the at least one anti-plunge tab, the distance being configured such that the at least one anti-plunge tab can be positioned on a proximal surface of cortical bone and the at least one retaining tab can be positioned on a distal surface of the cortical bone,” as recited in claim 5. Appeal Br. 17. Appellant argues that Bickley’s flange 50, as shown in Figure 1B of Bickley, instead “abuts the proximal surface of the outer cortex portion 80.” *Id.* The Examiner

maintains that, in Bickley Figure 1B, the flange 50 is positioned at a distal surface of cortical bone. The Examiner plainly is correct. *See* Bickley Fig. 1B. Accordingly, we affirm the rejection of claim 5.

*Rejection 3—Claims 29, 30, 32, and 33*

Appellant argues against the rejection of these claims for reasons already discussed and found unpersuasive above. Appeal Br. 18. Accordingly, we affirm the rejection of claims 29, 30, 23, and 33.

SUMMARY

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–3, 6, 9, 11, 12	103	Lunn, Lemos, Cochran	1, 2, 9, 11, 12	3, 6
4, 5	103	Lunn, Lemos, Cochran, Bickley	4, 5	
29, 30, 32, 33	103	Lunn, Lemos, Bickley	29, 30, 32, 33	
<b>Overall Outcome</b>			1, 2, 4, 5, 9, 11, 12, 29, 30, 32, 33	3, 6

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

AFFIRMED IN PART