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EXAMINER

JACKSON, BRANDON LEE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

1 Bonutti and Picolet (US 4,492,225, issued Jan. 8, 1985). Counsel for the
2 Appellant presented oral argument on December 11, 2012. We have
3 jurisdiction under 35 U.S.C. § 6(b).

4 We AFFIRM. Pursuant to our authority under 37 C.F.R. § 41.50(b)
5 (2010), we designate our affirmance of the rejection of claim 13 as being a
6 new ground of rejection under § 103(a) as being unpatentable over
7 Longfellow and Bonutti.

8 Claims 1 and 10 are independent. Claim 1 recites:

9 1. An apparatus for immobilizing an
10 injured joint of a body comprising:

11 a first plate adapted for engaging a limb of
12 the body, the first plate having a first end portion;

13 a second plate adapted for engaging a body
14 part to which the limb is connected via the injured
15 joint, the second plate having a second end
16 portion;

17 a hinge for pivotably connecting an end
18 portion of the first plate and an end portion of the
19 second plate; and

20 a telescoping rod having a first rod end and
21 an opposite rod end,

22 wherein the first rod end extends from the
23 first plate and the opposite rod end extends from
24 the second plate, and wherein the telescoping rod
25 maintains the first plate in a fixed position relative
26 to the second plate.

27

28 ISSUES

29 The Appellant argues the rejections of claims 2, 5-12 and 15 solely on
30 the basis of arguments addressed primarily to the rejection of claim 1. (*See*

1 App. Br. 29-30). Therefore, claim 1 is representative of the grouping
2 including claims 1, 2, 5-12 and 15. The Appellant does not appear to
3 explain how claims 3, 4, 16 or 17 might be patentable if claim 1 is not
4 patentable. (*Id.*) Therefore, only arguments relating to the rejections of
5 claims 1, 13 and 14 need be addressed.

6 The Examiner finds that Longfellow describes an apparatus including
7 every limitation of claim 1 except the use of a telescopic rod to maintain the
8 first plate in a fixed position relative to the second plate. (Ans. 5). The
9 Examiner concludes that it would have been obvious to substitute a
10 telescopic rod structurally similar to the longitudinally extending lower cuff
11 arm described by Bonutti for a turnbuckle 34 in the apparatus described by
12 Longfellow. (*Id.*) The Appellant argues that “neither Bonutti nor
13 Longfellow show, teach or suggest a telescoping rod between two ‘mutually’
14 hinged plates.” (Reply Br. 5 (underlining in original)). The Appellant also
15 argues that the apparatus including limitations recited in dependent claims
16 13 and 14 would not have been obvious. (App. Br. 30-34; Reply Br. 5-9).

17 Only issues and findings of fact contested by the Appellant have been
18 considered. *See Ex parte Frye*, 94 USPQ2d 1072, 1075-76 (BPAI 2010).
19 Three issues are dispositive of this appeal:

20 *First*, do the evidence and technical reasoning underlying
21 the rejection of claim 1 adequately support the conclusion that
22 one of ordinary skill in the art would have had reason to
23 substitute a telescopic rod structurally similar to the
24 longitudinally extending lower cuff arm described by Bonutti
25 for the turnbuckle 34 in the apparatus described by Longfellow?

1 *Second*, has the Examiner correctly interpreted the term
2 “detachable” as used in claim 13 sufficiently broadly to
3 encompass susceptibility to detachment by removing pins from
4 one or more of the hinge brackets 37, 38 of Longfellow’s
5 apparatus?

6 *Third*, has the Examiner correctly interpreted the term
7 “adjustment mechanism” as used in claim 14 sufficiently
8 broadly to encompass a “hinge” 36 of Longfellow’s apparatus?
9

10 FINDINGS OF FACT

11 The record supports the following findings of fact (“FF”) by a
12 preponderance of the evidence.

13 1. We adopt and incorporate by reference the findings of the
14 Examiner at page 4, line 16 of the Answer (starting with “Longfellow
15 discloses an apparatus (fig. 1) . . .”) through page 5, line 3 of the Answer
16 (ending with “. . . is secured to concave surfaces (3, 25).”).

17 2. Longfellow describes a splint for holding an upper limb in a
18 fixed position with respect to the body. (Longfellow 1, first column, ll. 1-5).
19 The splint includes an anchor member 1 and an upper support member 20
20 hinged at respective ends by a hinge 21. (Longfellow 1, second column, ll.
21 5-9). Each of the anchor member 1 and the upper support member 20
22 incorporates a plate.

23 3. Longfellow’s splint includes a hinge bracket 37 secured to the
24 upper arm support 20 by a rivet 32. (Longfellow 1, second column, ll. 45-
25 47).

1 4. Longfellow’s splint also includes a hinge bracket 38 secured to
2 the plate 39 by a rivet 40. (Longfellow 1, second column, ll. 47-48).

3 Figures 1 and 2 of Longfellow depict the hinge bracket 38 as being secured
4 in a back surface of the anchor member 1, that is, on a surface opposite that
5 adapted for engaging the limb.

6 5. Longfellow’s splint also includes a wing bolt 41 “adapted to be
7 threaded into openings 43 or 44 in [a] reinforcing strip 29 and anchor
8 member 1 to vary the distance of the hinge bracket 38 from the hinge 21 and
9 thereby effect a rough adjustment of the angular position of the upper arm
10 support or cradle 20 with respect to the anchor member 1.” (Longfellow 1,
11 second column, l. 51 – 2, first column, l. 3).

12 6. Since the hinge bracket 38 is secured to the plate 39 by a rivet
13 40, there is a sound basis for belief that the plate 39 must be susceptible of
14 movement relative to the anchor member 1 when the wing bolt 41 is
15 loosened to permit variation in the distance of the hinge bracket 38 from the
16 hinge 21. This fact implies a sound basis for belief that only the wing bolt
17 41 secures the plate 39 to the anchor member 1. Since Longfellow describes
18 the wing bolt 41 as being “adapted to be threaded into openings 43 or 44 in
19 the reinforcing strip 29 and anchor member 1” (*id.*), there is a sound basis
20 for belief that the wing bolt 41 also is adapted to be threaded out of the
21 anchor member 1. These facts imply that the plate 39 and the hinge bracket
22 38 are detachable from the anchor member 1 without damaging either the
23 hinge bracket 38 or the anchor member 1. As of the date of this opinion, the
24 Appellant has offered no evidence or argument which might contradict these
25 facts. *See In re Best*, 562 F.2d 1252, 1254-55 (CCPA 1977).

1 7. A strut or brace including a turnbuckle 34 is pivotably secured
2 at its ends 35, 36 to the hinge brackets 37, 38. (Longfellow 1, second
3 column, ll. 42-45).

4 8. A “turnbuckle” is a “device that usually consists of a link with
5 screw threads at both ends, that is turned to bring the ends closer together.”
6 (MERRIAM-WEBSTER ONLINE DICTIONARY, [http://www.merriam-webster](http://www.merriam-webster.com/dictionary/turnbuckle)
7 [.com/dictionary/turnbuckle](http://www.merriam-webster.com/dictionary/turnbuckle) (last visited Dec. 26, 2012). As depicted in
8 Figure 2 of Longfellow, the turnbuckle 34 consists of two eyelets with
9 threaded ends threaded into opposite ends of a frame. Based on the
10 depiction of the turnbuckle 34 in Figure 2 of Longfellow, the Examiner has a
11 sound basis for belief that turning either of the two eyelets relative to the
12 axis of the screw threads would cause that eyelet to either extend further
13 from the frame or retract further into the frame. The extension or retraction
14 of the eyelet relative to the frame would correspondingly lengthen or shorten
15 the turnbuckle as a whole. The Appellant offers no evidence or argument
16 which might contradict this belief.

17 9. Based on an inspection of Figure 2 of Longfellow, the
18 Examiner has a sound basis for belief that the hinge brackets 37, 38 require
19 pins to secure the ends 35, 36 of the turnbuckle 34 to the hinge brackets 37,
20 38. The Appellant offers no evidence or argument which might contradict
21 this belief.

22 10. Longfellow is silent regarding the pins securing the ends 35, 36
23 of the turnbuckle 34 to the hinge brackets 37, 38. The Examiner has not
24 articulated a sound basis for belief that the pins necessarily can be removed
25 from the hinge brackets 37, 38 without damage to the hinge brackets 37, 38.

1 11. The Examiner correctly finds that “hinge” 36, that is, the
2 combination of the hinge bracket 38 and the pin securing the end 36 of the
3 turnbuckle 34 to the hinge bracket 38, allows a user to adjust the angular
4 orientation of the anchor member 1 and the upper support member 20. (*See*
5 *Ans. 10, ll. 2-6*). The combination of the hinge bracket 38 and the pin
6 allows a user to adjust the angular orientation by enabling the anchor
7 member 1 and the upper support member 20 to pivot relative to each other
8 about the hinge 21 without having to bend either the frame or the eyelets of
9 the turnbuckle 34.

10 12. The combination of the hinge brackets 37, 38 and the pins
11 securing the ends 35, 36 of the turnbuckle 34 to the hinge brackets 37, 38
12 facilitates locking the anchor member 1 and the upper support member 20.
13 The combination does this by allowing the threaded portions of the eyelets
14 of the turnbuckle to maintain axial alignment with the frame while
15 continuing to engage the anchor member 1 and the upper support member
16 20.

17 13. Bonutti describes an orthosis 20 including a base 22. The base
18 22 includes a lower cuff arm 24 adapted to extend along a lower portion of a
19 patient’s arm. (*Bonutti, col. 2, ll. 37-39 and col. 6, ll. 40-41*).

20 14. The lower cuff arm 24 of Bonutti’s orthosis 20 includes an
21 extension section 158 telescopically received in a base section 156. The
22 extension section 158 moves axially into and out of the base section 156 to
23 lengthen or shorten the lower cuff arm 24. (*Bonutti, col. 6, ll. 40-44 and 46-*
24 *49*). The relative movement between the extension section 158 and the base
25 section 156 enables the orthosis 20 to accommodate patients having arms of
26 different lengths. (*Bonutti, col. 6, ll. 53-55*).

1 skill having enough sophistication to understand the disclosures of
2 Longfellow and Bonutti.

3 Longfellow's turnbuckle 34 itself constitutes a telescoping rod.
4 Therefore, Longfellow anticipates claim 1. Even were one to assume that
5 the turnbuckle 34 were not a telescoping rod, however, the Examiner
6 correctly concluded that it would have been obvious from the combined
7 teachings of Longfellow and Bonutti to substitute a telescoping rod for the
8 turnbuckle.

9 "[W]hen a patent claims a structure already known in the prior art that
10 is altered by the mere substitution of one element for another known in the
11 field, the combination must do more than yield a predictable result." *KSR*
12 *Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007). Bonutti teaches use of
13 the telescoping rod (that is, the lower cuff arm 24) for a purpose other than
14 to maintain a first plate of an immobilizing apparatus in a fixed position
15 relative to a second plate of the apparatus. (*See* FF 14). Nevertheless, it
16 would have been obvious merely to substitute a known telescoping rod of
17 the type described by Bonutti, fulcrumed at its ends to the hinge brackets 37,
18 38, for the structurally equivalent turnbuckle 34 described by Longfellow.
19 (*See* Ans. 10, ll. 3-5). The Appellant has not suggested any reason why the
20 proposed substitution would have been beyond the level of ordinary skill in
21 the art. Neither has the Appellant suggested a reason why the proposed
22 substitution might have yielded unpredictable results.

1 Therefore, we sustain the rejection of claims 1, 2 and 5-15 under
2 § 103(a) as being unpatentable over Longfellow and Bonutti. Since the
3 Appellant does not appear to explain how claims 3, 4, 16 or 17 might be
4 patentable if claim 1 is not patentable, we also sustain the rejection of claims
5 3, 4, 16 and 17 under § 103(a) as being unpatentable over Longfellow,
6 Bonutti and Picolet.

7

8 *Second Issue*

9 Claim 13 recites the “apparatus of claim 10, wherein the telescoping
10 support mechanism comprises a telescoping rod that is *detachable* from at
11 least one of the first plate and the second plate.” (Emphasis added.) The
12 Examiner appears to interpret the term “detachable” sufficiently broadly to
13 encompass both non-destructive and destructive removal of one part from
14 union with another. (*See* Ans. 9, lines 6-17). Relying on this interpretation,
15 the Examiner concludes that “the Longfellow plates (1, 20) obviously are
16 detachable from the rod (34) by removing the pins that are securing the ends
17 of the rods to the plates (1, 20).” (Ans. 9, ll. 15-17; *see also id.* at 5, ll. 9-
18 10). The Appellant argues that the Examiner’s interpretation of the term
19 “detachable” is unreasonably broad. (*See* Reply Br. 6).

20 The Appellant does not formally define the term “detachable” in the
21 Specification. In view of this, the term “detachable” may be interpreted as
22 broadly as the ordinary usage of the term by one of ordinary skill in the art
23 reasonably would permit. *In re ICON Health & Fitness, Inc.*, 496 F.3d
24 1374, 1379 (Fed. Cir. 2007); *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir.
25 1997). The Examiner correctly finds that the ordinary usage of the term
26 “detachable” encompasses structure susceptible of removal from association

1 or union with something. (*See* Ans. 9, ll. 8-10, citing THE AMERICAN
2 HERITAGE® STEDMAN’S MEDICAL DICTIONARY (Houghton Mifflin Co.
3 1995)).

4 Nevertheless, our reviewing court disfavors any claim interpretation
5 which would render a claim term superfluous. *Stumbo v. Eastman*
6 *Outdoors, Inc.*, 508 F.3d 1358, 1362 (Fed. Cir. 2007). As the Appellant
7 points out (*see* Reply Br. 6), any structure may be removed from union with
8 any other structure provided one is willing to tolerate a sufficient level of
9 destruction of one or both structures. Therefore, the Examiner’s
10 interpretation of the term “detachable” encompasses essentially every
11 structure which can be thought of as having at least two parts. The term so
12 interpreted does not limit claim 1 in any practical sense. In other words, the
13 Examiner’s interpretation renders the term “detachable” superfluous. Since
14 the Appellant proposes a reasonable interpretation of the term “detachable,”
15 namely, as encompassing only structure susceptible of non-destructive
16 removal from association or union with something (*see* Reply Br. 6), we
17 conclude that the Examiner’s broader interpretation of the term is
18 unreasonable.

19 Since the Examiner has not articulated a sound basis for belief that the
20 pins necessarily can be removed from Longfellow’s hinge brackets 37, 38
21 without damage to the hinge brackets 37, 38 (FF 10), the Examiner has not
22 shown by a preponderance of the evidence that Longfellow teaches a
23 telescoping support mechanism comprising a telescoping rod that is
24 *detachable* from at least one of the first plate 1 and the second plate 20.
25 Neither has the Examiner articulated reasoning with some rational
26 underpinning to explain why one of ordinary skill in the art might have had

1 reason to modify Longfellow's hinge brackets 37, 38 and pins so as to
2 satisfy the limitation. Therefore, we do not sustain the rejection of claim 13
3 for the reasons articulated by the Examiner.

4 That said, we enter new grounds of rejection of claim 13 under
5 § 103(a) as being unpatentable over Longfellow and Bonutti. There exists
6 sound basis for belief that Longfellow's hinge bracket 38 is detachable from
7 the first plate *I*. (FF 4-6). Since the only attachment between the turnbuckle
8 34 and the plate *I* described by Longfellow is through the hinge bracket 38,
9 there exists sound basis for belief that Longfellow's turnbuckle 34 is
10 detachable from the first plate *I*. (*Id.*) The mere substitution of a
11 telescoping rod of the type described by Bonutti for Longfellow's turnbuckle
12 34 would not have changed the nature of the attachment between the hinge
13 bracket 38 and the plate *I*. Therefore, the limitation set forth explicitly in
14 claim 13 would have flowed naturally from the teachings of Longfellow and
15 the nature of the modification proposed by the Examiner. *See Ex parte*
16 *Obiaya*, 227 USPQ 58, 60 (BPAI 1985) (“The fact that appellant has
17 recognized another advantage which would flow naturally from following
18 the suggestions of the prior art cannot be the basis for patentability when the
19 differences would otherwise be obvious.”). On the basis of this new ground,
20 we sustain the rejection of claim 13 under § 103(a) as being unpatentable
21 over Longfellow and Bonutti.

22

23 *Third Issue*

24 Claim 14 recites the “apparatus of claim 10, further comprising an
25 adjustment mechanism on the back surface of the first plate for receiving an
26 end of the telescoping support mechanism, wherein the adjustment

1 mechanism facilitates locking the first plate and the second plate at a desired
2 orientation with respect to each other.” The Examiner finds that “[h]inge
3 (36) on the rear of the first plate (1) serves as an adjustment mechanism
4 because it adjusts the angular orientation of the first and second plates (1,
5 20) relative to one another.” (Ans. 5, ll. 6-9). The Appellant argues that “at
6 least because Longfellow’s hinge (36)/bracket 38 has only fixed parts, but
7 has no moving or adjustable parts, it cannot be the adjustable support
8 mechanism recited by [the Appellant’s] claim 14.” (Reply Br. 8
9 (underlining in original)).

10 Claim 14 recites an “adjustment mechanism” rather than an
11 “adjustable support mechanism.” The Appellant does not point out any
12 formal definition of the term “adjustment” or “adjustment mechanism” in
13 the Specification. Turning to ordinary usage, *see In re ICON Health &*
14 *Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007), the term “adjustment” is
15 sufficiently broad to encompass the process of bringing components into a
16 proper relationship. (*See* THE FREE ONLINE DICTIONARY, [http://www](http://www.thefreedictionary.com/adjust)
17 [.thefreedictionary.com/adjust](http://www.thefreedictionary.com/adjust) (last visited January 2, 2013)(citing THE
18 AMERICAN HERITAGE DICTIONARY (Houghton Mifflin Co. 2009)(“adjust,”
19 def. 2) (“to bring into proper relationship”))). This definition of the term is
20 consistent with the usage of the term in the Specification, since the
21 Appellant fails to identify any description or illustration of an “adjustment
22 mechanism” in the Specification other than an echo of the claim language at
23 issue. (*See, e.g.*, App. Br. 9, citing Spec., para. 0013).

24 The Examiner’s finding that “[h]inge (36) on the rear of the first plate
25 (1) serves as an adjustment mechanism because it adjusts the angular
26 orientation of the first and second plates (1, 20) relative to one another”

1 (2010) provides that, “[a] new ground of rejection pursuant to this paragraph
2 shall not be considered final for judicial review.”

3 Regarding the new ground of rejection, Appellant must, WITHIN
4 TWO MONTHS FROM THE DATE OF THE DECISION, exercise one of
5 the following options with respect to the new ground of rejection, in order to
6 avoid termination of the appeal as to the rejected claims:

7 (1) *Reopen prosecution.* Submit an
8 appropriate amendment of the claims so rejected or
9 new evidence relating to the claims so rejected, or
10 both, and have the matter reconsidered by the
11 examiner, in which event the proceeding will be
12 remanded to the examiner. . . .

13 (2) *Request rehearing.* Request that the
14 proceeding be reheard under § 41.52 by the Board
15 upon the same record. . . .

16 Should the Appellant elect to prosecute further before the Examiner
17 pursuant to 37 C.F.R. § 41.50(b)(1) (2010), in order to preserve the right to
18 seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed
19 rejections, the effective date of the affirmance will be deferred until the
20 prosecution before the Examiner concludes unless one or more affirmed
21 rejections are overcome.

22 If the Appellant elects prosecution before the Examiner and this does
23 not result in allowance of the application, abandonment or a second appeal,
24 this case should be returned to the Patent Trial and Appeal Board for final
25 | action on the affirmed rejection, including any timely request for rehearing.

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1 No time period for taking any subsequent action in connection with
2 this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2010).

3

4 AFFIRMED; 37 C.F.R. § 41.50(b)

5

6

7 Klh