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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID D. D'ALISE

Appeal 2011-013500¹
Application 12/143,479
Technology Center 3700

Before DONALD E. ADAMS, FRANCISCO C. PRATS, and
JACQUELINE WRIGHT BONILLA, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 1-13 (App. Br. 5; Reply Br. 2; Ans. 3). We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

The claims are directed to a method of placing a dental implant having exterior threads, a divergent collar, and a flat tip (claims 1-3 and 12); a dental implant for placement in a jaw bone (claims 4-8); and a method of

¹ This Appeal is related to Appeal No. 2011-002843, Application No. 11/255,846, decision reversing all grounds of rejection entered May 24, 2012.

placing a dental implant having at least one exterior thread, a divergent collar, a microthread section adjacent to said divergent collar, and a flat tip (claims 9-11 and 13). Claims 1, 4, 9, 10, and 13 are representative and are reproduced in the Claims Appendix of Appellant's Brief.

Claim 13 stands rejected under the written description provision of 35 U.S.C. § 112, first paragraph.

Claims 10 and 11 stand rejected under the enablement provision of 35 U.S.C. § 112, first paragraph.

Claims 1, 3, and 12² stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard³ and Weissman.⁴

Claims 9-11 and 13 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard, Weissman, and Niznick.⁵

Claim 2 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard, Weissman, and Haessler.⁶

Claims 4, 6, and 7 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Bulard.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard and Wagner.⁷

² See Supplemental Examiner's Answer noting that claim 12 is included in this ground of rejection (Office Action, mailed June 15, 2011; Reply Br. 8-9).

³ Bulard et al., US 2005/0037319 A1, published February 17, 2005.

⁴ Weissman, US 5,785,525, issued July 28, 1998.

⁵ Niznick, US 2006/0003290 A1, published January 5, 2006.

⁶ Haessler, US 2004/0146834 A1, published July 29, 2004.

⁷ Wagner et al., US 5,897,319, issued April 27, 1999.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Bulard in combination with Choi⁸ or Niznick.

We reverse.

Written Description:

ISSUE

Does the preponderance of evidence on this record support Examiner's finding that Appellant's Specification fails to provide written descriptive support for the claimed invention?

FACTUAL FINDINGS (FF)

FF 1. Examiner finds that Appellant's "originally filed specification does not provide support for the additional rotation being up to specifically 180 degrees" (Ans. 5).

FF 2. Appellant's Specification discloses that

[W]hen [the] dental implant . . . is placed at the predetermined seating depth . . . and [the] blunt tip . . . is touching the bottom of the hole, *a few more turns of [the] dental implant . . . , but not necessarily a full rotation of [the] dental implant . . . ,* will cause [the] external threads . . . to engage and move [the] dental implant . . . a little further down and pull up the surrounding bone, thus condensing the surrounding bone at [the] apical end . . . of [the] implant.

(Spec. 14: ¶ [00033].)

ANALYSIS

Examiner finds that Appellant's Specification does not provide written descriptive support "for the specific range of 'up to 180 degrees'" (Ans. 14; FF 1; *Cf.* FF 2). We are not persuaded. Appellant's Specification

⁸ Choi et al., US 2004/0219488 A1, published November 4, 2004.

discloses that a dental implant is positioned and rotated, or turned, “a few more turns ... but not necessarily a full rotation” (FF 2; App. Br. 10). Thus, Appellant’s Specification discloses rotating to some degree more than 0, but not necessarily 360 degrees. Therefore, on this record, we find that by describing the whole, Appellants have “necessarily described the part remaining,” i.e., up to 180 degrees. *In re Johnson*, 558 F.2d 1008, 1019 (CCPA 1977).

CONCLUSION OF LAW

The preponderance of evidence on this record fails to support Examiner’s finding that Appellant’s Specification fails to provide written descriptive support for the claimed invention. The rejection of claim 13 under the written description provision of 35 U.S.C. § 112, first paragraph is reversed.

Enablement:

Does the evidence of record support Examiner’s conclusion that undue experimentation would be required to practice the claimed invention?

FACTUAL FINDINGS (FF)

FF 3. Examiner finds that Appellant’s Specification “does not provide a[] disclosure of fulcrum points, therefore it is unclear how fulcrum points are being eliminated” (Ans. 5).

FF 4. Appellant’s Specification discloses:

The depth of the implant should be established so that a portion of the collar is wedged into the outer cortical layer of bone. The rest of the tapered collar penetrates through the hole in the gum tissue above the bone. The abutment of the implant is preferably above the gum tissue. In this preferred manner, a dual stabilization effect is created by the tip condensing the

bone around it and the collar wedging into the bone around it that maintains and gives the implant greater biomechanical support and stabilization until final natural healing or osseointegration occurs which, with prior art devices, is usually at a period of three to six months after the implant is placed.

(Spec. 8: ¶ [00024].)

ANALYSIS

The method of Appellant's claim 10 requires, *inter alia*, the step of eliminating implant fulcrum points when the dental implant is placed by affixing the implant at multiple points along the length of the implant at a level of securement significantly greater than the level of securement along the remainder of the length of the implant (Appellant's Claim 10; *see* FF 4). Examiner finds that Appellant's Specification "does not provide a[] disclosure of fulcrum points, therefore it is unclear how fulcrum points are being eliminated" (FF 3). We are not persuaded.

Appellant's Specification discloses "a dual stabilization effect," which "is created by the tip condensing the bone around it and the collar wedging into the bone around it that maintains and gives the implant greater biomechanical support and stabilization until final natural healing or osseointegration occurs" (FF 4). As Appellant explains, this dual stabilization effect "operates on the basic physical principles of a lever," wherein the placement of "a single load on one end of a lever having a fulcrum point results in th[e] load swinging around the fulcrum point," whereas a support placed on either side of a load eliminates a fulcrum point (Reply Br. 6-7). Therefore, notwithstanding Examiner's contention to the contrary, Appellant's disclosure of a dual stabilization effect provides an enabling disclosure of eliminating fulcrum points, as required by Appellant's

claim 10, wherein the dental implant is placed by affixing the implant at multiple points along the length of the implant at a level of securement significantly greater than the level of securement along the remainder of the length of the implant (*see* FF 4; Appellant's Claim 10).

CONCLUSION OF LAW

The evidence of record fails to support Examiner's conclusion that undue experimentation would be required to practice the claimed invention. The rejection of claims 10 and 11 under the enablement provision of 35 U.S.C. § 112, first paragraph is reversed.

The combination of Bulard and Weissman with or without Niznick and Haessler:

ISSUE

Does the preponderance of evidence on this record support a conclusion of obviousness?

FACTUAL FINDINGS (FF)

FF 5. Examiner finds that Bulard suggests Appellant's claimed invention with the exception of, *inter alia*, "rotation of the implant until the exterior thread further engage and pull up on the bone around and underneath the flat tip thereby causing the dental implant to condense the bone at the flat tip" (Ans. 6).

FF 6. Weissman suggests an implant with threads that are self-tapping,

[S]uch that the implant, as it is threaded into the hole ... in the jawbone and nears its full penetration, will ... penetrate the bottom of the hole ... and make further engagement with the jawbone so as to preclude distal wobbling during the extended period when osseointegration takes place.

(Weissman, col. 6, ll. 29-36; Ans. 7.)

FF 7. Examiner relies on Niznick to suggest “an implant with a divergent collar” (Ans. 10).

FF 8. Examiner relies on Haessler to suggest that “the drilling of the pilot hole sets the predetermined seating depth” of the implant (*id.* at 11).

ANALYSIS

Based on the combination of Bulard and Weissman, Examiner concludes that, at the time Appellant’s invention was made, it would have been prima facie obvious to “modify the method taught by Bulard with the method of additionally threading the implant in the bore in order to further engage the implant in the jaw bone to prevent wobbling” (Ans. 7).

According to Examiner, “the tip [of the implant] condenses the bone at the flat tip since, the implant is extended beyond the bore and thread pull up on the bone around the tip since the implant, including the threads is being pressed into the bore” (*id.*). We are not persuaded.

Bulard lacks a tip adapted to condense bone (App. Br. 14; FF 5). Weissman suggests an implant with a self-tapping thread that penetrates the bottom of the pilot hole (App. Br. 15-16; FF 6). Examiner failed to identify an evidentiary basis on this record to support a conclusion that the implant suggested by the combination of Bulard and Weissman would be capable of causing the dental implant to condense bone as required by Appellant’s claimed invention (*see* App. Br. 15-16). “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to

support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Examiner’s reliance on Niznick or Haessler fails to make up for the foregoing deficiency in the combination of Bulard and Weissman (*see* FF 7-8).

CONCLUSION OF LAW

The preponderance of evidence on this record fails to support a conclusion of obviousness. The rejection of claims 1, 3, and 12 under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard and Weissman is reversed. The rejection of claims 9-11 and 13 under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard, Weissman, and Niznick is reversed. The rejection of claim 2 under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard, Weissman, and Haessler is reversed.

The rejection over Bulard alone or in combination with Wagner, Choi, or Niznick:

ISSUE

Does the preponderance of evidence on this record support a conclusion of obviousness?

FACTUAL FINDINGS (FF)

FF 9. Examiner finds that Bulard suggests Appellant’s claimed implant with the exception of an angle between the leading edge and outer edge of a thread that falls in a range of about sixty to ninety degrees (Ans. 12; *Cf.* Appellant’s Claim 4).

FF 10. Examiner finds that the selection of an angle of about sixty to ninety degrees is a matter “of design choice well within the skill of the ordinary

artisan obtained through routine experimentation in determining optimum results” (*id.*).

FF 11. Examiner relies on Wagner to suggest a thread that “functions as an auger thread” (*id.*).

FF 12. Examiner relies on Choi to suggest “a microthread ... capable of interacting with the cortical bone of a jaw when the implant is placed in the jaw” (*id.* at 13).

FF 13. Examiner relies on Niznick to suggest “an implant with a divergent collar” (*id.* at 14).

ANALYSIS

Examiner finds that the selection of an angle of about sixty to ninety degrees is a matter “of design choice well within the skill of the ordinary artisan obtained through routine experimentation in determining optimum results” (FF 10). We are not persuaded.

“[W]hile it may ordinarily be the case that the determination of optimum values for the parameters of a prior art process would be at least prima facie obvious, that conclusion depends upon what the prior art discloses with respect to those parameters.” *In re Sebek*, 465 F.2d 904, 907 (CCPA 1972). Examiner failed to establish an evidentiary basis on this record to support a conclusion that a person of ordinary skill in this art, at the time of Appellant’s claimed invention, would have been concerned about the angle between the leading edge and outer edge of a thread or the optimization of this angle through routine experimentation (*see* App. Br. 24 (“Examiner’s argument that the angle limitations are obvious as part of experimentation and optimum results [is] without citation to any authority or support”)).

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Examiner's reliance on Wagner, Choi, and Niznick fails to make up for the foregoing deficiency in Bulard (*see* FF 11-13).

CONCLUSION OF LAW

The preponderance of evidence on this record fails to support a conclusion of obviousness. The rejection of claims 4, 6, and 7 under 35 U.S.C. § 103(a) as unpatentable over Bulard is reversed. The rejection of claim 5 under 35 U.S.C. § 103(a) as unpatentable over the combination of Bulard and Wagner is reversed. The rejection of claim 8 under 35 U.S.C. § 103(a) as unpatentable over Bulard in combination with Choi or Niznick is reversed.

REVERSED

cdc