

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ABSOLUTE DENTAL SERVICES, INC.,  
Petitioner,

v.

WATSON GUIDE IP, LLC,  
Patent Owner.

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IPR2023-00177  
Patent 11,173,016 B2

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Before SHERIDAN K. SNEDDEN, JAMES A. TARTAL, and  
MICHAEL A. VALEK, *Administrative Patent Judges*.

TARTAL, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
*35 U.S.C. § 314*

## I. INTRODUCTION

Absolute Dental, Inc. (“Petitioner”)<sup>1</sup> filed a Petition pursuant to 35 U.S.C. §§ 311–319 requesting an *inter partes* review of claims 1–10, 12, and 13 (“the Challenged Claims”) of U.S. Patent No. 11,173,016 B2 (Ex. 1001, “the ’016 patent”). Paper 1 (“Pet.”). Watson Guide IP LLC (“Patent Owner”)<sup>2</sup> filed a Preliminary Response. Paper 7.

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b) (2018); 37 C.F.R. § 42.4(a) (2021). An *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (stating that the decision whether to institute *inter partes* review requires “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”).

Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we conclude that the information does not demonstrate a reasonable likelihood that Petitioner would prevail in showing the

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<sup>1</sup> Petitioner identifies no additional real parties in interest related to Petitioner. Pet. 1. Instead, Petitioner further identifies as real parties in interest Patent Owner and “potentially ROE Dental Laboratory, Inc. who is named as a co-plaintiff with Watson,” presumably in reference to a related district court proceeding. *Id.* (citing 37 C.F.R. § 42.8(b)(1)). Rule 42.8 provides, in relevant part, that each party must file a notice to “[i]dentify each real party-in-interest for the party.” Accordingly, Petitioner’s purported identification of Patent Owner’s real parties in interest is not required by or permitted under Rule 42.8.

<sup>2</sup> Patent Owner identifies no additional real parties in interest. Paper 4, 2.

unpatentability of at least one of the Challenged Claims. Accordingly, we do not institute an *inter partes* review.

## II. BACKGROUND

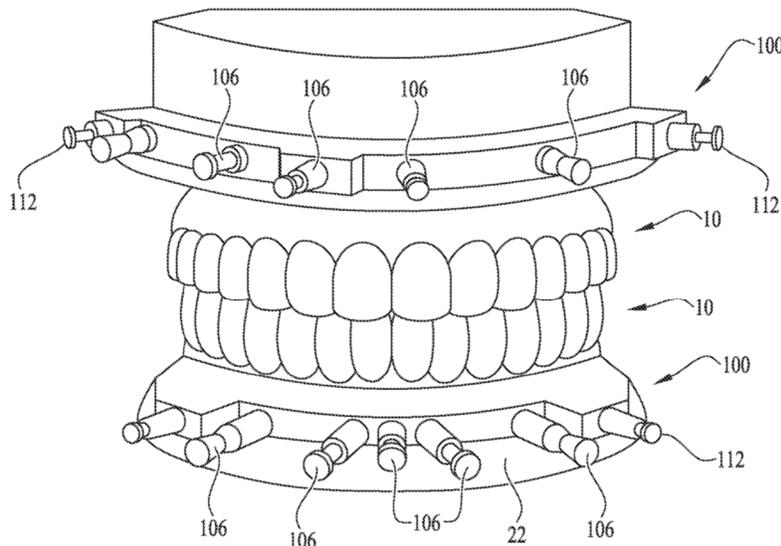
### A. The '016 Patent

The '016 patent is titled “Fixation Base and Guides for Dental Prosthesis Installation,” and issued on November 16, 2021, from U.S. Patent Application No. 15/984,309, filed May 18, 2018. Ex. 1001, codes (21), (22), (45), (54). The '016 patent “relates to method and apparatus for installing a prefabricated dental prosthesis in the mouth of a patient,” and, in particular, describes “a method enabling installation of a multi-tooth prosthesis anchored in implants.” *Id.* at 1:11–13, 1:26–28.

The '016 patent describes a procedure whereby first a “fixation base” is attached to the jawbone to provide “geometrically correct reference points for subsequent operations.” *Id.* at 1:34–39. A “mouthpiece” may be used to install the fixation base to assist in setting the fixation base in the appropriate location, after which the mouthpiece may be removed. *Id.* at 1:41–45. “With only the fixation base installed, undesired teeth, previously installed dental fixtures, and obstructive body tissues are removed from the work site,” and “[e]xposed maxillary or mandibular bone is then recontoured by abrasive removal of tissue.” *Id.* at 1:46–50. An “abutment guide base” may then be installed to the fixation base “to confirm appropriate preparation of the maxillary or mandibular bone tissue,” after which, the abutment guide base may be removed. *Id.* at 1:53–58. Next, a “drill guide” is installed to the fixation base and “holes for implants are drilled into the exposed and recontoured bone.” *Id.* at 1:59–61. “Implants are installed in the drilled holes,” and the “drill guide may then be removed.” *Id.* at 61–63. “The abutment guide base is installed to the fixation base, and abutments are

installed” on their “associated implant.” *Id.* at 1:64–67. “Copings are then installed using the abutments,” and a “prefabricated prosthesis is then installed over the copings” using a “settable resin . . . to bond the copings to the prosthesis.” *Id.* at 2:1–4. The prosthesis, with copings, is removed, the abutment guide based and fixation base are removed, and then the prosthesis is installed for use. *Id.* at 2:4–13.

Figure 2 of the '016 patent is reproduced below.



*FIG. 2*

Figure 2 illustrates “a front view of maxillary and mandibular prosthesis, shown with apparatus of the invention attached thereto, and fixed to models of maxillary and mandibular jawbones.” *Id.* at 2:37–40. Figure 2 includes dental prosthesis 10 and fixation base 100 attached by fasteners 112 to artificial model 22 of mandibular and maxillary jawbones. *Id.* at 3:58–4:10, 4:24–28. “First attachment elements 106 may comprise pins, threaded bolts, or other manually removable fasteners, and are made to cooperate with corresponding openings in the other apparatus to be mounted on fixation

base 100.” *Id.* at 4:28–32. The ’016 patent further illustrates “step by step details” of the process in a series of figures. *Id.* at 8:1–51; Figs. 12A–12Z.

Figure 1 of the ’016 patent is reproduced below.

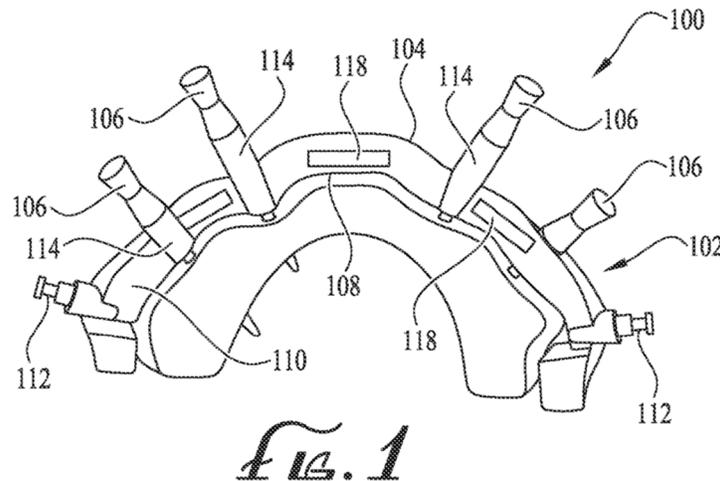


Figure 1 illustrates “an environmental plan view of a fixation base used to install a dental prosthesis.” *Id.* at 2:34–36. Figure 1 shows fixation base 100, which “provid[es] an attachment surface for other apparatus used to orient” implants, abutments, copings, and dental prosthesis “during an installation procedure.” *Id.* at 3:62–66. Referring to features of the fixation base in Figure 1, the ’016 patent states as follows:

Fixation base 100 may further comprise a generally arcuate base member 102 having a front surface 104 bearing a plurality of fasteners 112, a rear surface 108 configured and dimensioned to fit flushly against a maxillary or mandibular bone structure of the patient, and a horizontal surface 110 bearing first attachment elements 106 for engagement of a first dental guide 122 . . . usable with fixation base 100, and wherein fixation base 100 is non-anatomical.

*Id.* at 3:66–4:7.

*B. Illustrative Claims*

Petitioner challenges claims 1–10, 12, and 13 of the '016 patent.

Pet. 1. Claims 1 and 13 are independent and directed to a method. Claim 6 is independent and directed to an apparatus. Claims 1 and 6 are illustrative of the claimed subject matter and are reproduced below.

1. A method of installing a multi-tooth dental prosthesis in a maxillary or mandibular position in a mouth of a patient, the method comprising:

providing a dental prosthesis for the maxillary or mandibular positioning in the patient's mouth,

utilizing a fixation base to serve as a mounting jig for a plurality of other dental guides comprising a first dental guide, a second dental guide, and a third dental guide, wherein the fixation base comprises a generally arcuate shape with a front surface that has a plurality of openings through which fasteners can be passed, a rear surface, and a horizontal surface bearing first attachment elements for engagement of the dental guides used in the prosthesis installation, wherein the fixation base is configured and dimensioned to fit only in front of the maxillary or mandibular bone structure of said patient and itself does not include any portion which would otherwise extend in back of the maxillary or mandibular bone structure of said patient;

utilizing the first dental guide, wherein the first dental guide is a mouthpiece that attaches to the fixation base and is used to assure appropriate location to attach the fixation base to the maxillary or mandibular bone tissue of said patient;

installing the fixation base to the maxillary or mandibular bone tissue of said patient;

removing the mouthpiece from the installed fixation base;

removing at least one of natural teeth, dental fixtures, and obstructive mouth tissues from the work site, to expose an underside of the maxillary or mandibular bone tissue;

recontouring the bone tissue;

utilizing the second dental guide, wherein the second dental guide is a drill guide that attaches to the installed fixation base to assure appropriate location and orientation of holes to be drilled for the subsequently installed implants;  
drilling the implant holes in the recontoured bone tissue using the drill guide attached to the fixation base;  
removing the drill guide from the installed fixation base;  
utilizing the third dental guide, wherein the third dental guide is an abutment guide base that attaches to the installed fixation base to assure appropriate location for the subsequently installed abutments;  
installing the abutments, using the abutment guide base attached to the fixation base; and,  
installing said dental prosthesis to the abutments.

Ex. 1001, 8:63–9:44.

6. An apparatus for installing a dental prosthesis to maxillary or mandibular jaw bone of a patient, the apparatus comprising:

a fixation base for providing an attachment surface for a dental guide used during a dental prosthesis installation procedure, the fixation base further comprising a generally arcuate base member with a front surface that includes a plurality of openings through which fasteners can be passed, a rear surface, a horizontal surface, and manually releasable attachment elements for attachment of a dental guide used during a prosthesis installation to the fixation base, wherein the fixation base is configured and dimensioned to fit only in front of the maxillary or mandibular bone structure of a patient and which fixation base itself does not include any portions which would otherwise extend in back of the maxillary or mandibular bone structure of a patient.

*Id.* at 10:1–17.

C. *Asserted Grounds of Unpatentability*

Petitioner asserts that the Challenged Claims are unpatentable based on the following grounds:

<b>Claim(s) Challenged</b>	<b>35 U.S.C. §<sup>3</sup></b>	<b>Reference(s)/Basis</b>
6, 10	102	Zerhat <sup>4</sup>
6, 10	103	Zerhat
1–3, 5–10, 12, 13	103	'255 Llop, <sup>5</sup> Zerhat
1–3, 5–10, 12, 13	103	Wong, <sup>6</sup> Zerhat
4	103	'255 Llop, Zerhat, '881 Llop <sup>7</sup>
4	103	Wong, Zerhat, '881 Llop
4	103	'255 Llop, Wong, Zerhat, '881 Llop

Pet. 6. Petitioner further relies on the supporting Declaration of Dr. Christian Yaste, dated November 8, 2022. Ex. 1005.

D. *Related Proceedings*

Patent Owner states that the '016 patent “is asserted in the following pending matters, which may affect or be affected by a decision in this proceeding: *Watson Guide IP, LLC, et al., v. Absolute Dental Services, Inc.*, Case No. 1:22cv00558 (Middle District of North Carolina)

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<sup>3</sup> The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. §§ 102 and 103 that became effective on March 16, 2013. We apply the post-AIA version of §§ 102 and 103 here, because the earliest priority application identified in the '016 patent was filed after the effective date of the AIA. See Ex. 1001, code (60).

<sup>4</sup> WO 2010/061124 A1 (Ex. 1004, “Zerhat”).

<sup>5</sup> US 2016/0038255 A1 (Ex. 1003, “'255 Llop”).

<sup>6</sup> Natalie Y. Wong, *Predictable Immediate Implant Prosthetics Using Guided Surgery and Guided Prosthetics: A Case Report*, Oral Health Group (Jan. 7, 2016), (Ex. 1006, “Wong”).

<sup>7</sup> US 2015/0010881 A1 (Ex. 1007, “'881 Llop”).

[("the '558 case"); 8:20-cv-00641 (C.D. Cal.); and *Watson Guide IP, LLC et al. v. Global Management Systems LLC, et al.*, Case No. 22cv1046 (Southern District of California).” Paper 4, 2; *see also* Pet. 1–2 (identifying only the '558 case as a related matter).

### III. ANALYSIS

#### A. *Legal Standards for Anticipation and Obviousness*

A claim is anticipated if a single prior art reference either expressly or inherently discloses every limitation of the claim. *Orion IP, LLC v. Hyundai Motor Am.*, 605 F.3d 967, 975 (Fed. Cir. 2010). “A single prior art reference may anticipate without disclosing a feature of the claimed invention if such feature is necessarily present, or inherent, in that reference.” *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 958 (Fed. Cir. 2014) (citing *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003)).

A patent claim is unpatentable for obviousness if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). In *Graham v. John Deere Co.*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of nonobviousness such as “commercial success, long felt but unsolved needs, failure of others, etc.” *Id.* at 17–18; *KSR*, 550 U.S. at 407.

“Whether an ordinarily skilled artisan would have been motivated to modify the teachings of a reference is a question of fact.” *WBIP, LLC v.*

*Kohler Co.*, 829 F.3d 1317, 1327 (Fed. Cir. 2016) (citations omitted). The Supreme Court made clear that we apply “an expansive and flexible approach” to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To support this conclusion, however, it is not enough to show merely that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness additionally requires that a person of ordinary skill at the time of the invention “would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention.” *Id.*

In determining whether there would have been a motivation to combine prior art references to arrive at the claimed invention, it is insufficient to simply conclude the combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination. *Metalcraft of Mayville, Inc. v. Toro Co.*, 848 F.3d 1358, 1366 (Fed. Cir. 2017). Moreover, in determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 164 (Fed. Cir. 1985) (“It is elementary that the claimed invention must be considered as a whole in deciding the question of obviousness.”); *see also Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983) (“[T]he question under 35 U.S.C. § 103 is not whether the differences themselves would have

been obvious. Consideration of differences, like each of the findings set forth in *Graham*, is but an aid in reaching the ultimate determination of whether the claimed invention as a whole would have been obvious.”). “[W]here a party argues a skilled artisan would have been motivated to combine references, it must show the artisan ‘would have had a reasonable expectation of success from doing so.’” *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1360–61 (Fed. Cir. 2017) (quoting *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068–69 (Fed. Cir. 2012)).

*B. Level of Ordinary Skill in the Art*

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). Petitioner contends a person of ordinary skill in the art “would at least have had a doctoral degree in dentistry and at least three to four years of experience working with guided dental surgery for installing dental implants and prosthesis.” Pet. 11 (citing Ex. 1005 ¶ 21). Patent Owner does not dispute the level of ordinary skill identified by Petitioner. *See generally* Prelim. Resp.

We find that the ’016 patent and the cited prior art references reflect a level of skill at the time of the claimed invention that is consistent with the level of skill proposed by Petitioner. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). Accordingly, for purposes of this Decision, we adopt Petitioner’s proposed definition for a person of ordinary skill in the art.

*C. Claim Construction*

We apply the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). Under that standard, claim terms “are generally given their ordinary and customary meaning” as would have been understood by a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

“In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317.

Petitioner proposes no express claim constructions and states that the “Petition can be decided without claim construction.” Pet. 12. Patent Owner also proposes no express claim constructions and states that “the Board need not construe any of the limitations of the ’016 [patent] claims to deny institution.” Prelim. Resp. 11. We agree that it is not otherwise necessary to address the express interpretation of any claim term for purposes of this Decision. See *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (“[C]laim terms need only be construed ‘to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

*D. Alleged Anticipation by Zerhat*

Petitioner contends claims 6 and 10 are anticipated by Zerhat. Pet. 13–27. Petitioner provides a detailed explanation of its contentions in

the Petition, including a clause-by-clause analysis specifying how Zerhat purportedly discloses each limitation of claims 6 and 10, and those contentions are supported by the testimony of Dr. Yaste. *Id.*; Ex. 1005 ¶¶ 95–142. Patent Owner argues in opposition that Petitioner fails to show how certain limitations of claim 6 are disclosed by Zerhat. Prelim. Resp. 23–27.

Below we provide a brief summary of Zerhat in relevant part. We then focus our discussion on whether Petitioner has sufficiently shown, for purposes of supporting institution under the asserted ground of anticipation, how Zerhat discloses “a fixation base . . . comprising . . . a horizontal surface,” as required by claim 6. Because we determine that Petitioner has not made the necessary showing in the Petition in regard to this limitation, we conclude Petitioner has not demonstrated a reasonable likelihood of success in showing that either claim 6 or claim 10, which depends from claim 6, is anticipated by Zerhat.

*1. Summary of Zerhat*

Zerhat states that it “relates to a device for assisting in dental implant placement,” and specifically “to a device for assisting in the drilling of insertion wells for dental implants.” Ex. 1004 ¶ 1.

Figure 1 of Zerhat is reproduced below.

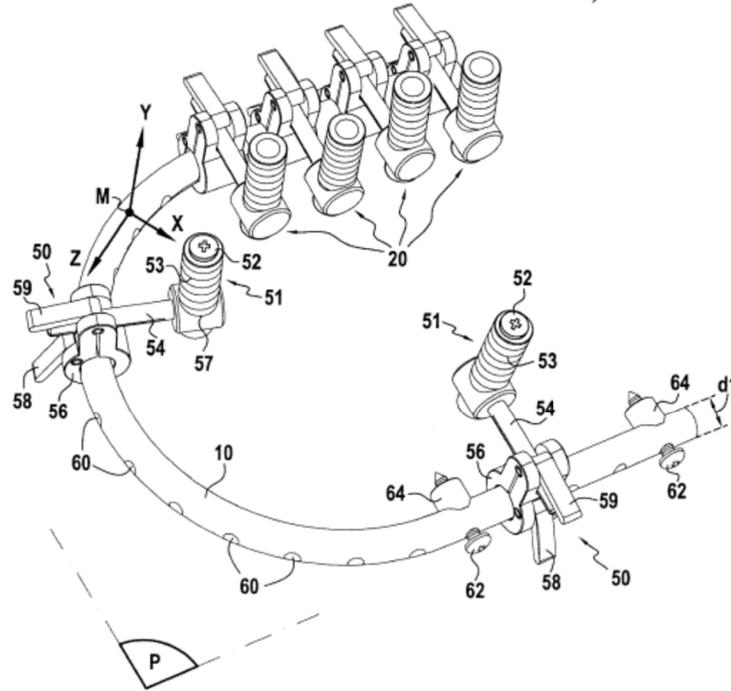


FIG.1

Figure 1 illustrates a perspective view of a device described by Zerhat.

*Id.* ¶ 22. The device includes rail 10, which “consists of a rod of circular cross-section, preferentially but not necessarily of constant diameter.”

*Id.* ¶ 24. According to Zerhat, “[w]hen positioned in the patient’s mouth, the rail 10 lies in a plane that is substantially parallel to the plane of the jaw.”

*Id.* ¶ 25. “[S]everal guidance means 20 are pivotally mounted on the rail 10, opposite the location(s) where an implant is to be made.” *Id.* ¶ 27.

2. *Independent Claim 6*

Claim 6 requires, among other things, “a fixation base . . . comprising . . . a horizontal surface.” Ex. 1001, 10:1–17. Petitioner contends Zerhat discloses this limitation in Figure 11 and provides an annotated version of Figure 11 of Zerhat, reproduced below, indicating with

a red arrow that Petitioner contends rail 10 includes a horizontal surface.  
Pet. 21.

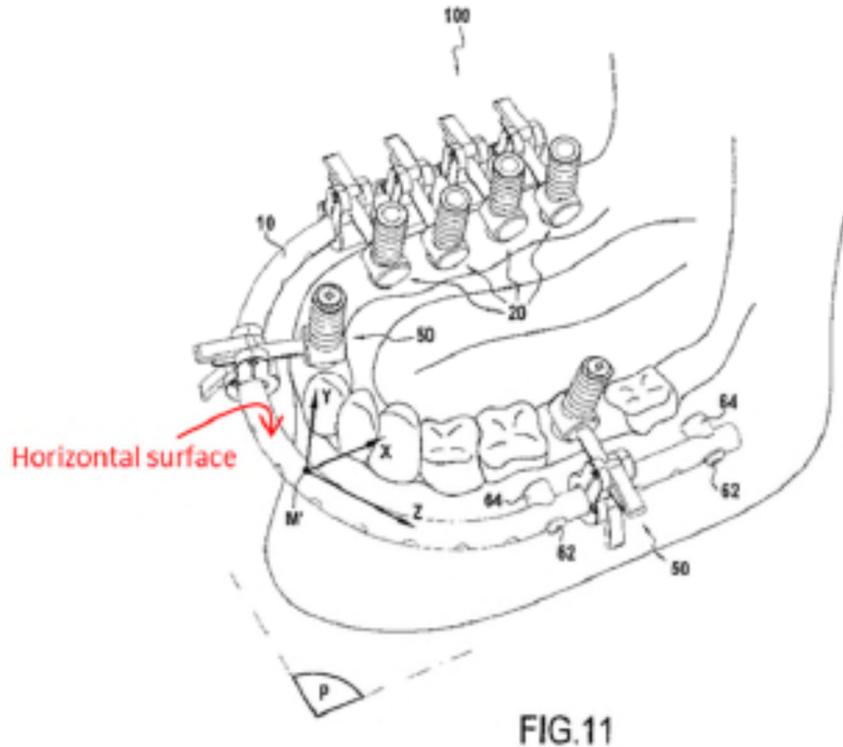


Figure 11 illustrates a perspective view of the dental implant assistance device shown in Figure 1 of Zerhat mounted on the jaw of a patient.

Ex. 1004 ¶ 22. Petitioner draws our attention in its annotated version of Figure 11 to rail 10 with a red arrow labeled “Horizontal surface.” Pet. 21 (citing Ex. 1004, Fig. 11; Ex. 1005 ¶¶ 122–125).

The surface Petitioner identifies with its annotation is the top of “a rod of circular cross-section.” See Ex. 1004 ¶ 24. Petitioner offers no additional explanation in the Petition to show why one of ordinary skill in the art would have understood the rounded surface of Zerhat’s rod, illustrated in Figure 11, to disclose a “horizontal surface,” as required by claim 6.

Looking to the portions of the testimony of Dr. Yaste cited by Petitioner for this limitation, we find that testimony unconvincing. According to Dr. Yaste, “Zerhat describes that the fixation base has ‘a plane substantially parallel to the plane of the jaw,’” and from a person of ordinary skill in the art’s “perspective, ‘parallel to the plane of the jaw’ and ‘horizontal’ are synonymous in the context of the fixation base and mounting.” Ex. 1005 ¶ 124. From this, Dr. Yaste concludes that “Figure 11 of Zerhat shows rail (10) as having a horizontal surface, i.e., surface portion perpendicular to its front and rear surfaces.” *Id.* On its face, however, Figure 11 shows no such thing, because, as Patent Owner notes, the only disclosure of Zerhat Petitioner directs us to “is in reality, and indisputably, the top view of a curved surface,” corresponding to a rod of circular cross section shown in Figure 11 as rail 10. *See* Prelim. Resp. 25.

Thus, the issue is not whether the fixation base of Zerhat lies in a plane substantially parallel to the plane of the jaw, as Dr. Yaste discusses, but whether Petitioner has shown how Zerhat discloses a fixation base with a “horizontal surface,” as required by claim 6. Because Figure 11 of Zerhat, the only disclosure of Zerhat relied upon by Petitioner for this limitation, illustrates rail 10 as circular rod, Petitioner fails to show how Zerhat discloses a fixation base with a “horizontal surface,” as required by claim 6. Accordingly, we conclude Petitioner has not demonstrated a reasonable likelihood of success in showing that claim 6 is anticipated by Zerhat.

### 3. *Dependent Claim 10*

Claim 10 depends from claim 6. Ex. 1001, 10:40–48. Because Petitioner has not demonstrated a reasonable likelihood of success in showing that claim 6 is anticipated by Zerhat, Petitioner has not

demonstrated a reasonable likelihood of success in showing that claim 10 is anticipated by Zerhat for the same reasons.

*E. Alleged Obviousness Over Zerhat*

In its table of asserted grounds of unpatentability, Petitioner indicates that under Ground “1” it is challenging claims 6 and 10 under “§ 102 and § 103: Zerhat.” Pet. 6. In its analysis, however, Petitioner only presents arguments under the heading “GROUND ONE: Zerhat Anticipates Claims 6 and 10 of the ’016 Patent” and does not articulate any theory of obviousness based on Zerhat alone. *Id.* at 13; *see also id.* at 14 (“Zerhat anticipates claims 6 and 10”). Likewise, Dr. Yaste addresses only anticipation of claims 6 and 10 by Zerhat, not obviousness over Zerhat alone. *See Ex. 1005 ¶¶ 95–142.* For these reasons, Patent Owner argues in opposition that “[a]lthough Petitioner alleges that claims 6 and 10 are ‘anticipated or obvious’, Petitioner fails to present any argument regarding obviousness.” Prelim. Resp. 23.

We agree with Patent Owner. Petitioner’s reference in the table of asserted grounds to a ground based on obviousness over Zerhat alone appears to be an error given the absence of any supporting argument or evidence. Nevertheless, to the extent Petitioner asserts obviousness over Zerhat alone as a ground of unpatentability, we find Petitioner has not shown a reasonable likelihood of success in showing that either claim 6 or claim 10 would have been obvious over Zerhat.

*F. Alleged Obviousness Over ’255 Llop and Zerhat*

Petitioner contends the subject matter of claims 1–3, 5–10, 12, and 13 would have been obvious over the combination of ’255 Llop and Zerhat. Pet. 27–59. Petitioner offers the testimony of Dr. Yaste to support these contentions. *Ex. 1005 ¶¶ 143–261.*

Patent Owner states in opposition that during examination claims were allowed over '255 Llop with the addition of limitations requiring that the fixation base be configured and dimensioned to fit only in front of the maxillary or mandibular bone structure. Prelim. Resp. 28; *see also* Pet. 9–10 (stating that the addition of the “only in front of” limitation during prosecution was “the only reason the '016 Patent was allowed over the cited prior art”). Patent Owner does not dispute that Zerhat teaches a fixation based that fits only in front of the maxillary or mandibular bone structure, but argues that Petitioner provides no sufficient reasoning to support Petitioner’s proposed modification of Zerhat to include a fixation base that fits only in front of the maxillary or mandibular bone structure based on the teachings of '255 Llop. *Id.* at 28–31.

Below we provide a brief summary of '255 Llop, in relevant part, and then focus our discussion on the dispositive issue of whether Petitioner provides a sufficient reason for the asserted combination. For the reasons that follow, we determine that Petitioner has not demonstrated a reasonable likelihood of showing the subject matter of any of claims 1–3, 5–10, 12, and 13 would have been obvious over the combination of '255 Llop and Zerhat, because Petitioner has not articulated sufficient reason for the application of the teachings of Zerhat to '255 Llop as proposed by Petitioner.

*1. Summary of '255 Llop*

'255 Llop is directed to a “bone foundation guide system and method.” Ex. 1003, code (57). '255 Llop describes one possible embodiment as follows:

a bone foundation guide comprising a body having a buccal wall and a lingual wall that is continuously connected by a first end and a second end forming an open surgical space connecting a top of the body with a bottom of the body, the bottom is

contoured to reversibly affix the body to at least a portion of a bone segment of a dental implant surgical site while the top is contoured to match a bottom side of a dental implant surgical guide as well as to guide the modification of a portion of the bone segment; one or more struts, at least one of the one or more struts removably attaches to body to connect the buccal wall to the lingual wall, the apex of the strut further denoting an one or more indentations for matching and receiving one or more portions of an opposing alveolar ridge.

*Id.* ¶ 28.

Figures 1 and 5 of '255 Llop are reproduced below.

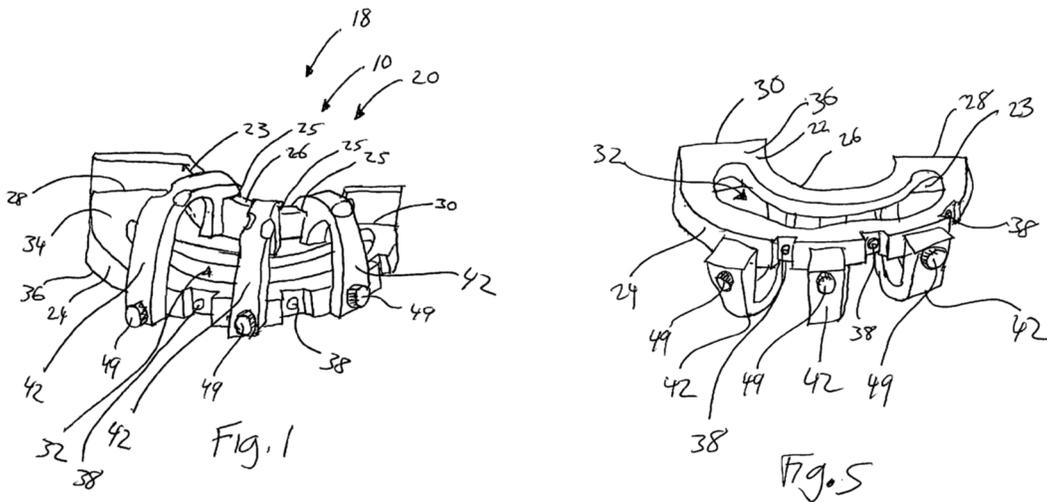


Figure 1 illustrates a perspective bottom side view and Figure 5 illustrates a perspective top side view of an embodiment of bone foundation guide 20 of '255 Llop. *Id.* ¶¶ 32, 36. '255 Llop states as follows:

The bone foundation guide 20 could comprise a bone foundation guide body 22 with a buccal wall 24 and lingual wall 26 connected together at their respective ends by a first end 28 and a second end 30. The first end 28 and the second end 30 could be holding the buccal and lingual walls 24, 26 apart from one and other in a substantially parallel fashion to generally create and define an open surgical space 32 (e.g., that generally passes through the bone foundation guide body 22) to generally

continuously connect a portion of the top 34 of the body 22 with a portion of the bottom 36 of the body 22.

*Id.* ¶ 61.

2. *Independent Claims 1, 6, and 13*

Claims 1, 6, and 13 recite, in part, “wherein the fixation base is configured and dimensioned to fit only in front of the maxillary or mandibular bone structure” of a patient and no portion of the base “would otherwise extend in back of the maxillary or mandibular bone structure” of a patient. Ex. 1001, 8:63–9:44, 10:1–17, 11:1–31. Petitioner does not allege that ’255 Llop teaches or suggests this limitation, but instead relies only on Zerhat for this limitation. Pet. 34, 37–38, 57 (citing, e.g., *id.* at 23–24). Specifically, Petitioner relies on Zerhat’s rail 10, which may be positioned “outside the patient’s lower or upper jaw.” *Id.* at 23–24 (quoting Ex. 1004 ¶ 23); *see also* Ex. 1005 ¶ 150 (Dr. Yaste stating that “[a] primary difference between Zerhat and ’255 Llop is that Zerhat has a configuration of fitting only in front of the maxillary or mandibular bone structure of a patient and no portion of it extends in back of the maxillary or mandibular bone structure of the patient, whereas ’255 Llop does not specifically disclose such a configuration”). Thus, Petitioner’s theory of obviousness is premised on modifying ’255 Llop with Zerhat’s teachings such that the guide would fit only in front of the maxillary or mandibular bone structure.

In regard to “Reasons to Combine Zerhat with ’255 Llop,” Petitioner argues as follows:

Zerhat and ’255 Llop are in the same field of endeavor. *See* Ex. 1005 at ¶ 149. Zerhat and ’255 Llop are in the same technical field as the ’016 Patent. *Id.* All disclose methods and devices directed at guided oral surgery. *Id.* All are related to the dental prosthesis installation procedure. *Id.*

A [person of ordinary skill in the art] implementing '255 Llop would have been familiar with and consulted Zerhat to identify alternative designs to perform guided oral surgery relating to dental implants and/or prosthesis. *Id.* at ¶¶ 149–150. Applying Zerhat to '255 Llop would be well within the scope of a [person of ordinary skill in the art]'s capabilities. *Id.* at ¶¶ 150–51. In this combination, both Zerhat and '255 Llop would be performing the same function(s) they had been known to perform separately. Ex. 1005 at ¶¶ 150–51. It would have been obvious to a [person of ordinary skill in the art] that, by combining Zerhat and '255 Llop, they would achieve potential benefits of having an oral surgery guide for dental prosthesis installation, where the fixation base fits only in front of the jawbone. *Id.* This combination would represent no more than the combination of familiar elements that would yield a predictable result. *Id.*

Furthermore, [persons of ordinary skill in the art] were utilizing a fixation bases sitting only in the front of the patient's jawbone(s) in oral surgery at the priority date. *Id.* at ¶¶ 151–52. Therefore, a [person of ordinary skill in the art] would have known such a configuration was a viable option, rendering predictable results of success. *Id.* Accordingly, combining Zerhat with '255 Llop would have been desirable and obvious. *Id.* The resulting combination renders claims 1–3, 5–10, 12, and 13 invalid.

*Id.* at 28–29. The testimony of Dr. Yaste cited by Petitioner, i.e., Ex. 1005 ¶¶ 149–152, is substantially similar to what appears in the Petition and does not further elaborate on the reasons for this combination.

Patent Owner argues in opposition that “Petitioner identifies no teaching or suggestion in Zerhat or '255 Llop, or anywhere else, that having a fixation base ‘configured and dimensioned to fit only in front of the maxillary or mandibular bone structure of said patient’ is advantageous or desirable.” Prelim. Resp. 28–29. Patent Owner further draws attention to the teachings in '255 Llop that “the fixation base is used with removable struts 44 that extend to both buccal and lingual walls 24, 26 to position the

fixation base 20 in the patient's mouth," as well as the "the use of a dental implant surgical guide 50 and tissue spacing gasket 80 that each fit completely over the fixation base 20 and over the jawbone of the patient." *Id.* at 29 (citing Ex. 1003 ¶¶ 63, 67, 80). Patent Owner argues that Petitioner fails to show that these additional structures of the '255 Llop could be easily adapted to use with the fixation base of Zerhat. *Id.* at 30.

Based on the arguments and record before us, we determine that Petitioner fails to provide sufficient reasoning in support of the asserted combination of '255 Llop and Zerhat to demonstrate a reasonable likelihood of prevailing. Petitioner's general assertion that both references and the '016 patent are in "the same technical field" and that Zerhat teaches "alternative designs to perform guided oral surgery" may suggest that Zerhat is pertinent art relative to '255 Llop. *See* Pet. 28. Such generalities, however, do not articulate reasoning why a person of ordinary skill would have had reason to modify '255 Llop to have a fixation base configured and dimensioned to fit only in front of the maxillary or mandibular bone structure. Nor has Petitioner shown sufficiently that the fixation base of Zerhat is simply interchangeable with the fixation based of '255 Llop. '255 Llop teaches a fixation base that is not only in front of the maxillary or mandibular bone structure, like the fixation base of Zerhat, but that further extends in back of the maxillary or mandibular bone structure enabling the use of struts that extend to both buccal and lingual walls to position the fixation base in the patient's mouth. *See, e.g.*, Ex. 1003, ¶¶ 28, 32, 36, 6, Figs. 1, 5. There is no persuasive evidence to support that Petitioner's proposed modification of '255 Llop, based on Zerhat, to eliminate all portions of the fixation base of '255 Llop extending beyond maxillary or mandibular bone structure, and further requiring modification of the

attachment struts of '255 Llop, would have been merely “the combination of familiar elements that would yield a predictable result,” as Petitioner suggests. *See* Pet. 28–29.

The closest Petitioner comes to articulating reasoning for the proposed combination is its assertion that it “would achieve potential benefits of having an oral surgery guide for dental prosthesis installation, where the fixation base fits only in front of the jawbone.” Pet. 28. But neither Petitioner, nor Dr. Yaste, explain what those benefits might be or why they might motivate one of ordinary skill to make such a modification. On this record, Petitioner’s vague and ambiguous reference to “potential benefits,” in the absence of any identification of an actual purported benefit, is not a reason that sufficiently supports the asserted combination.

“[O]bviousness ground, in particular, 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.” *TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1359 (Fed. Cir. 2019) (quoting *KSR*, 550 U.S. at 418). Here, however, Petitioner has not articulated any particular reasoning for the combination nor even identified the “potential benefits” that might provide a rational underpinning for such. Petitioner’s failure to do so undermines Patent Owner’s ability to specifically respond to those contentions as well as the Board’s ability to evaluate the merits of Petitioner’s reasoning. Accordingly, given the absence of sufficient reasoning with rational underpinning for the asserted combination, we conclude Petitioner has not demonstrated a reasonable likelihood of success in showing that any of claims 1, 6, or 13 would have been obvious over '255 Llop and Zerhat.

3. *Dependent Claims 2, 3, 5, 7–10, and 12*

Claims 2, 3, and 5 depend from claim 1, claims 7–10 and 12 depend from claim 6. Ex. 1001, 9:45–67. 10:19–48, 10:58–67. Petitioner has not demonstrated a reasonable likelihood of success in showing that any of claims 2, 3, 5, 7–10, or 12 would have been obvious over '255 Llop and Zerhat for the same reasons Petitioner has not demonstrated a reasonable likelihood of success in showing that either claim 1 or claim 6 would have been obvious over '255 Llop and Zerhat.

G. *Alleged Obviousness Over Wong and Zerhat*

Petitioner contends the subject matter of claims 1–3, 5–10, 12, and 13 would have been obvious over the combination of Wong and Zerhat. Pet. 60–83. Wong, titled, Predictable Immediate Implant Prosthetics using Guided Surgery and Guided Prosthetics: A Case Report, is an article that “discusses a novel and predictable protocol for a clinician to deliver a full-arch immediate fixed prosthesis.” Ex. 1006, 1. Dr. Yaste explains that a person of ordinary skill in the art “would have understood the teachings of Wong to encompass the implementation of a device detailed in '255 Llop.” Ex. 1005 ¶ 262.

Like the asserted combination of '255 Llop and Zerhat, in the asserted combination of Wong and Zerhat Petitioner again relies only on Zerhat as teaching “wherein the fixation base is configured and dimensioned to fit only in front of the maxillary or mandibular bone structure” of a patient and no portion of the base “would otherwise extend in back of the maxillary or mandibular bone structure” of a patient. Pet. 65–67, 80–81. In regard to “Reasons to Combine” Zerhat with Wong, Petitioner argues as follows:

Zerhat and Wong are in the same field of endeavor. *See* Ex. 1005 at ¶ 263. Both are in the same technical field as the

'016 Patent. *Id.* All disclose methods and devices directed at guided oral surgery. *Id.* All are related to the dental prosthesis installation procedure. *Id.*

A [person of ordinary skill in the art] implementing Wong would have been familiar with and consulted Zerhat to identify alternative designs to perform guided oral surgery relating to dental implants and/or prosthesis. *Id.* Furthermore, a [person of ordinary skill in the art] would have understood Wong to encompass implementation of '255 Llop. *Id.* Therefore, the motivation to combine '255 Llop with Zerhat also applies to Wong. Ex. 1005 at ¶ 263. The resulting combination renders claims 1–3, 5–10, and 12–13 invalid.

*Id.* at 60.

Patent Owner argues that “Petitioner identifies no teaching or suggestion in Zerhat or Wong, or anywhere else, that having a fixation base ‘configured and dimensioned to fit only in front of the maxillary or mandibular bone structure of said patient’ is advantageous or desirable.” Prelim. Resp. 32–33.

Based on the arguments and record before us, we determine that Petitioner fails to provide sufficient reasoning in support of the asserted combination of Wong and Zerhat to demonstrate a reasonable likelihood of prevailing. Petitioner’s arguments addressing reasons to combine Wong and Zerhat are substantively the same as the reasons Petitioner provides in support of the combination of '255 Llop and Zerhat addressed above. As Petitioner explains, Wong is merely a case report describing an “implementation of '255 Llop.” Pet. 60 (citing Ex. 1005 ¶ 263). Accordingly, in the absence of any sufficient reason in the Petition supporting the asserted combination of Wong and Zerhat, for the same reasons discussed above in regard to the asserted combination of '255 Llop and Zerhat, we conclude Petitioner has not demonstrated a reasonable

likelihood of success in showing that any of claims 1–3, 5–10, 12, and 13 would have been obvious over Wong and Zerhat.

*H. Alleged Obviousness Over '255 Llop “and/or” Wong, Zerhat, and '881 Llop*

Claim 4 depends from claim 1 and further recites “the step of recontouring the bone tissues comprises utilizing a . . . a bone reduction guide that attaches to the installed fixation base to assure proper recontouring of the bone tissue.” Ex. 1001, 9:58–62. Petitioner contends the subject matter of claim 4 would have been obvious over either the combination of '255 Llop “and/or” Wong, in view of Zerhat, and further in view of '881 Llop. Pet. 83–85. Petitioner’s contentions directed to claim 4 do not resolve the insufficiency of Petitioner’s contentions directed to claim 1 from which claim 4 depends. Moreover, Petitioner’s arguments in support of the addition of '881 Llop to the asserted combinations for purposes of claim 4 likewise fail to provide a sufficient reason to support institution. *See id.* at 84. Accordingly, we conclude Petitioner has not demonstrated a reasonable likelihood of success in showing that claim 4 would have been obvious over '255 Llop “and/or” Wong, Zerhat, and '881 Llop.

#### IV. CONCLUSION

For the foregoing reasons, we determine that Petitioner does not demonstrate a reasonable likelihood of prevailing with respect to at least one of the Challenged Claims. Accordingly, we do not institute *inter partes* review of the '016 patent.

IV. ORDER

Upon consideration of the record before us, it is:

ORDERED that the Petition is *denied* and no trial is instituted.

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Patent 11,173,016 B2

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