



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/759,920	07/08/2015	Pascal Kunz	NOBELB.491NP (P1512US00)	6791
20995	7590	08/20/2020	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			FOLGMANN, DREW S	
			ART UNIT	PAPER NUMBER
			3772	
			NOTIFICATION DATE	DELIVERY MODE
			08/20/2020	ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

efiling@knobbe.com
jayna.cartee@knobbe.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PASCAL KUNZ and ULF JOHANSSON

Appeal 2019-002609
Application 14/759,920
Technology Center 3700

Before KENNETH G. SCHOPFER, BRADLEY B. BAYAT, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SCHOPFER, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 3, and 5–11. We have jurisdiction under 35 U.S.C. § 6(b). A hearing was held on July 30, 2020.

We REVERSE.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Nobel Biocare Services AG. Appeal Br. 3.

BACKGROUND

The Specification discloses that “[t]he present invention relates to a dental drill bit,” “the use of such a dental drill bit,” and “a method of drilling a hole in an oblique bone surface of a jaw bone of a patient.” Spec. 1, ll. 3–7.

ILLUSTRATIVE CLAIM

Independent claim 1 is illustrative of the appealed claims and recites:

1. A combination of a dental drill bit and a surgical template provided with a guide hole adapted to guide the dental drill bit directly or via a guide sleeve provided in the guide hole, the dental drill bit comprising a first end, a second end, a spherical drill head arranged at the first end, and at least one helical flute extending from the spherical drill head towards the second end, wherein the portion of the dental drill bit having the at least one helical flute is substantially cylindrical and configured to be guided by the guide hole or by the guide sleeve, wherein the dental drill bit further comprises a longitudinal axis extending through the first end and the second end, wherein the longitudinal axis lies in a plane in which the spherical drill head defines a circle sector having a sector angle greater than 180 degrees, and wherein only the spherical drill head comprises a plurality of cutting edges.

Appeal Br. 12.

REJECTIONS

1. The Examiner rejects claims 1, 3, and 5–11 under 35 U.S.C. § 103(a) as unpatentable over Cheng² in view of Danger³ and Chen.⁴

² Cheng et al., US 2012/0135373 A1, pub. May 31, 2012.

³ Danger, US 2009/0053674 A1, pub. Feb. 26, 2009.

⁴ Chen, US 2010/0112517 A1, pub. May 6, 2010.

2. The Examiner rejects claims 6 and 7 under 35 U.S.C. § 103(a) as unpatentable over Cheng in view of Danger, Chen, and Ellis.⁵

DISCUSSION

Claim 1 requires, *inter alia*, a drill bit with a spherical drill head wherein the drill head is the only portion of the drill bit with a plurality of cutting edges. Appeal Br. 12. The Examiner finds that Cheng teaches a drill bit as claimed, except that

Cheng fail(s) to teach a spherical drill head arranged at the first end, from the spherical drill head; wherein the longitudinal axis lies in a plane which the spherical drill head defines a circle sector having a sector angle greater than 180 degrees, and wherein only the spherical drill head comprises a plurality of cutting edges; wherein the spherical drill head is radially centralized; wherein the maximum diameter of the spherical drill head is equal or substantially equal to the diameter of the portion of the dental drill bit having the at least one helical flute.

Final Act. 4–5. The Examiner relies on Danger as teaching a drill bit with a spherical head (per present claim 1) and with a maximum diameter of the head equal to a diameter of the helical portion of the drill bit (*see* present claim 8). *Id.* at 5 (citing Danger Fig. 1; ¶¶ 23, 24). The Examiner concludes:

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention, to modify Cheng, by requiring a spherical drill head arranged at the first end, from the spherical drill head; wherein the spherical drill head is radially centralized; wherein the maximum diameter of the spherical drill head is equal or substantially equal to the diameter of the portion of the dental drill bit having the at least one helical flute, as taught by Danger, for the purpose of using a

⁵ Ellis, US 2013/0006248 A1, pub. Jan. 3, 2013.

drill head shape well known in the art to provide the optimum tool for each preparation step.

Id. at 5–6 (citing Danger ¶ 2). The Examiner finds that the resulting combination would include a drill with a spherical head wherein a plurality of cutting edges are present only on the drill head, as required by claim 1.

Id. at 6. The Examiner further relies on Chen as disclosing a drill head with a sector angle greater than 180 degrees, as claimed. *Id.* at 6–7.

A conclusion of obviousness must be supported by the clear articulation of a reason why the claimed invention would have been obvious. The Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) indicated that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit. The Federal Circuit has stated that “rejections 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), cited with approval in *KSR*, 550 U.S. at 418.

We are persuaded by Appellant’s argument that the Examiner has not set forth an adequate reason to support the proposed combination of Cheng and Danger. *See* Appeal Br. 7–8. More specifically, we agree with Appellant that the Examiner has not provided an adequate reason supporting the Examiner’s proposal to pick only Danger’s semi-spherical cutting head for combination with Cheng’s drill bit. *Id.* The Examiner reasons that the substitution would provide “a drill head shape well known in the art to provide the optimum tool for each preparation step.” Final Act. 6. Yet, we determine that the use of such a “catch-all” reasoning does not adequately support the conclusion of obviousness. Danger discloses that a “dentist may

select the optimum tool for each preparation step” (*id.* ¶ 2), but any person of ordinary skill in any art would recognize the desirability of using the appropriate tool for a particular job. This general statement says nothing regarding why a person of ordinary skill in the art would have specifically chosen to modify Cheng’s drill bit with a semispherical head, as taught by Danger, and without also applying Danger’s teaching of continuous cutting edges extending along the shaft of the bit. Thus, we are persuaded of error in the rejection because the Examiner has not adequately supported the conclusion that it would have been obvious to modify Cheng as proposed.

Accordingly, we do not sustain the rejection of claim 1. Further, the Examiner relies on the same reasoning in rejecting each of the remaining claims on appeal and does not provide further citation to evidence or reasoning to cure the deficiency discussed above. Thus, we also do not sustain the rejections of claims 3 and 5–11.

CONCLUSION

We REVERSE the rejections of claims 1, 3, and 5–11.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3, 5–11	103(a)	Cheng, Danger, Chen		1, 3, 5–11
6, 7	103(a)	Cheng, Danger, Chen, Ellis		6, 7
Overall Outcome				1, 3, 5–11

REVERSED