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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NAVEEN KONDAMEEDI

Appeal 2019-003080
Application 14/605,548
Technology Center 3700

Before BENJAMIN D.M. WOOD, MICHAEL J. FITZPATRICK, and
LISA M. GUIJT, *Administrative Patent Judges*.

FITZPATRICK, *Administrative Patent Judge*.

DECISION ON APPEAL

Kennametal Inc. (“Appellant”)¹ appeals under 35 U.S.C. § 134(a) from the Examiner’s final decision rejecting claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ Appellant is the “applicant” under 37 C.F.R. § 1.42(b) and identifies itself as the sole real party in interest. Appeal Br. 1.

STATEMENT OF THE CASE

The Specification

The Specification's disclosure relates "to the field of cutting inserts" and, more particularly, "a method of removing material from the cutting insert using electromagnetic energy." Spec. ¶1.

The Claims

Claims 1–20 are rejected. Final Act. 1. Claims 1, 8, and 13 are independent. Appeal Br. 9–11. Claim 1 is illustrative and reproduced below.

1. A method of removing material from a cutting insert comprising
 - focusing a truncated laser beam onto a surface of the cutting insert,
 - thereby creating a surface feature on the surface of the cutting insert,
 - the surface of the cutting insert being formed of at least one of cubic boron nitride, polycrystalline diamond, polycrystalline cubic boron nitride, diamond, diamond-like carbon, titanium aluminum nitride, titanium carbide, titanium carbonitride, titanium nitride and alumina.

Id. at 9 (paragraphing added).

The Examiner's Rejections

The rejections before us are pursuant to 35 U.S.C. § 103 and as follows:

1. claims 1, 2, 7, 8, 13, and 18–20 as unpatentable over Gross,² Anikitchev,³ and Chen⁴ (Final Act. 2); and
2. claims 3, 4–6, 9, 10–12, and 14–17 as unpatentable over Gross and Salama⁵ (*id.* at 6).

DISCUSSION

Rejection 1

Gross teaches self-retaining sutures for use in surgical procedures, the retainers of which are cut or formed by lasers. Gross at [54] (Title), [57] (Abstract), ¶¶10–14. With respect to claim 1, the Examiner found that Gross teaches a laser that removes material from a targeted object, thereby creating a surface feature on the object. Final Act. 2. However, the Examiner concedes that Gross does not teach: (1) that the laser is truncated, (2) that the targeted object is a cutting insert, or (3) that the targeted object is made of any of the materials recited in claim 1. *Id.* at 2–3.⁶

With respect to the first missing feature, the Examiner cites Anikitchev, finding that it “discloses a filtering aperture 124A for a laser

² US 2013/0238022 A1, published Sept. 12, 2013 (“Gross”).

³ US 7,847,213 B1, issued Dec. 7, 2010 (“Anikitchev”).

⁴ US 2012/0230785 A1, published Sept. 13, 2012 (“Chen”).

⁵ US 2007 /0000884 A1, published Jan. 4, 2007 (“Salama”).

⁶ With respect to the second missing feature, the Examiner does not concede that the prior art must teach it, construing the claims such that “the intended use of removing material from a cutting insert is not given patentable weight.” Final Act. 3. We disagree with that construction, at least as it pertains to Appellant’s method claims.

beam which truncates the laser beam. (See Fig 2 and Column 8 and Column 11, Lines 20–32).” The Examiner concludes: “It would have been obvious to adapt Gross in view of Anikitchev to provide the truncation of the beam for cleaning up the beam so the beam has a super-Gaussian like intensity profile.” *Id.* at 2–3. No other explanation or elaboration is provided. *Id.*

“An examiner bears the initial burden of presenting a prima facie case of obviousness.” *See, e.g., In re Huai-Hung Kao*, 639 F.3d 1057, 1066 (Fed. Cir. 2011); *see also* 35 U.S.C. § 132(a). The Examiner has not done so here.

As Appellant points out, Anikitchev’s truncated laser is used for thermal processing, or annealing, of semiconductor substrates for dopant activation. Appeal Br. 6 (citing Anikitchev 3:10–13, 7:5–8). And, according to Anikitchev, “[l]aser beams with a high-order super-Gaussian profile are preferred for many rapid thermal semiconductor processing applications since they provide for extended flattop regions and render the process more power efficient.” Anikitchev 9:11–12 (cited at Reply Br. 2).

Although Anikitchev explains why a super-Gaussian profile is preferred for annealing semiconductor components, the Examiner does not explain why a super-Gaussian profile would be beneficial in the context of Gross, which uses a laser to ablate material to form hook-like retainers in self-retaining sutures. Consequently, the rejection lacks an adequate reason with rational underpinning to support the combination. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (“[R]jections 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.”) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); *In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988))

(“revers[ing] for failure to establish a prima facie case of obviousness”); 35 U.S.C. § 132(a) (requiring a statement of “the reasons for such rejection . . . together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application”). The same is true for the rejection of independent claims 8 and 13. *See* Final Act. 4–5.

For the foregoing reasons, we reverse the rejection of independent claims 1, 8, and 13, as well as that of claims 2, 7, and 18–20, all of which ultimately depend from either claim 1 or claim 8. *See In re Fine*, 837 F.2d 1071, 1076, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

Rejection 2

The Examiner rejected claims 3, 4–6, 9, 10–12, and 14–17 over Gross and Salama. Final Act. 6. All of these claims ultimately depend from one of independent claims 1, 8, and 13. Appeal Br. 9–11. Yet the Examiner does not rely on Salama for curing the deficiencies of Gross with respect to independent claims 1, 8, and 13; Salama is relied on merely for limitations added by the rejected dependent claims. *See* Final Act. 6–7. Accordingly, the identified prior art (i.e., Gross and Salama) does not teach: (1) a truncated laser, (2) that the targeted object is a cutting insert, or (3) that the targeted object is made of any of the materials recited in claim 1, as the Examiner concedes in Rejection 1. *See* Final Act. 2–3. As such, we reverse the rejection.⁷

⁷ To the extent the Examiner intended that Rejection 2 be over Gross, *Anikichev, Chen*, and Salama, such a rejection, on this record, likewise

SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 7, 8, 13, 18–20	103	Gross, Anikitchev, Chen		1, 2, 7, 8, 13, 18–20
3, 4–6, 9, 10–12, 14–17	103	Gross, Salama		3, 4–6, 9, 10–12, 14–17
Overall Outcome				1–20

REVERSED

would suffer from a lack of adequate reasoning with rational underpinning for why a person of ordinary skill in the art would modify Gross in view of Anikitchev.