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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WILLIAM J. MALONEY, JOHN M. GREEN, and
MICHAEL L. BROOKS

Appeal 2014-009523
Application 13/009,117¹
Technology Center 3700

Before JOHN C. KERINS, STEFAN STAICOVICI, and
FREDERICK C. LANEY, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

William J. Maloney et al. (Appellants) appeal under 35 U.S.C.
§ 134(a) from the Examiner's final decision rejecting claims 1–11 and 13–
15.² We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We REVERSE.

¹ According to Appellants, the real party in interest is Microport Orthopedics Holding Inc. Appeal Br. 2 (filed Aug. 28, 2014).

² Claim 12 is canceled. *Id.* at 15 (Claims App.).

INVENTION

Appellants' invention "relates to knee prostheses that more closely emulate the kinematics of the actual knee joint." Spec. ¶ 1.

Claims 1 and 11 are independent. Claim 11 is illustrative of the claimed invention and reads as follows:

11. A tibial insert for a total knee replacement prosthesis configured to cooperate with a femoral component of the prosthesis, the femoral component comprising a lateral condylar surface, medial condylar surface and a posterior cam, the tibial insert comprising:
- a lateral bearing surface for contacting the lateral condylar surface;
 - a medial bearing surface for contacting the medial condylar surface; and
 - a raised portion having a posterior surface adapted to cooperate with the posterior cam of the femoral component, the posterior surface comprising a posteriorlateral camming surface and a posteriormedial camming surface, the posteriorlateral camming surface having a smaller radius of curvature than the posteriormedial camming surface.

REJECTIONS

The following rejections are before us for review:

- I. The Examiner rejected claims 11 and 15 under 35 U.S.C. § 102(b) as being anticipated by Suguro (US 2005/0209701 A1, pub. Sept. 22, 2005).
- II. The Examiner rejected claims 1–7, 9, and 10 under 35 U.S.C. § 103(a) as being unpatentable over Suguro and Kaufman (US 6,013,103, iss. Jan. 11, 2000).

- III. The Examiner rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Suguro, Kaufman, and Mihalko (US 2012/0095564 A1, pub. Apr. 19, 2012).
- IV. The Examiner rejected claims 13 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Suguro and Mihalko.

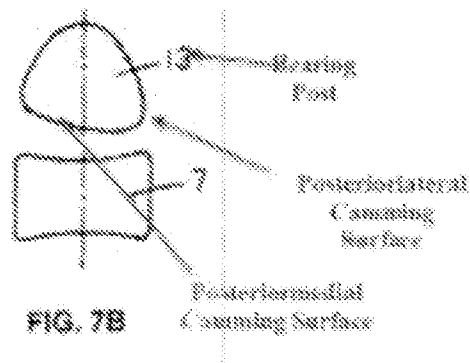
ANALYSIS

Rejection I

The Examiner finds that Suguro discloses,

[A] raised portion (i.e. post) (13) having a posterior surface comprising a posteriorlateral camming surface (see annotated version of figure 7B below) and a posteriomedial camming surface (see annotated version of figure 7B below), the posteriorlateral camming surface having a smaller radius of curvature than the posterior medial camming surface (e.g., figure 7B; paragraph [0036]).

Final Act. 2–3 (mailed May 14, 2014). To better visualize the Examiner's position, the Examiner sets forth a first annotated Figure 7B of Suguro, as shown below:



Id. at 3. The Examiner's first annotated Figure 7B of Suguro shows bearing post 13 and cam 7, where the Examiner points to the right corner of post 13 as the claimed posteriorlateral camming surface and to the left corner of post 13 as the claimed posterior medial camming surface.

Appellants argue that paragraph 36 of Suguro discloses that the center of the radius of curvature of the posteriorlateral camming surface of post 13 is displaced outward towards cam 7, such that "the posteriorlateral side of the post 13 is closer to cam 7 than the posteriormedial side of post 13." Appeal Br. 6 (emphasis omitted).³ To better support their position, Appellants present their own annotated Figure 7B of Suguro, as shown below:

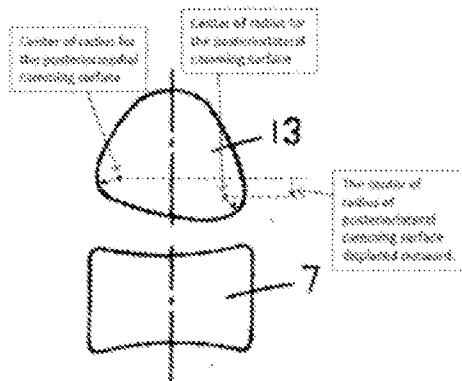


FIG. 7B

³ Paragraph 36 of Suguro states that:

[I]f the cam 7 is symmetric in terms of right and left diameter, the lateral articular surface 11 side at the posterior surface of the post 13 should be set back from the medial articular surface 10 side, that is, the center of the curvature (or radius) can be displaced outward as shown in Fig. 7B.

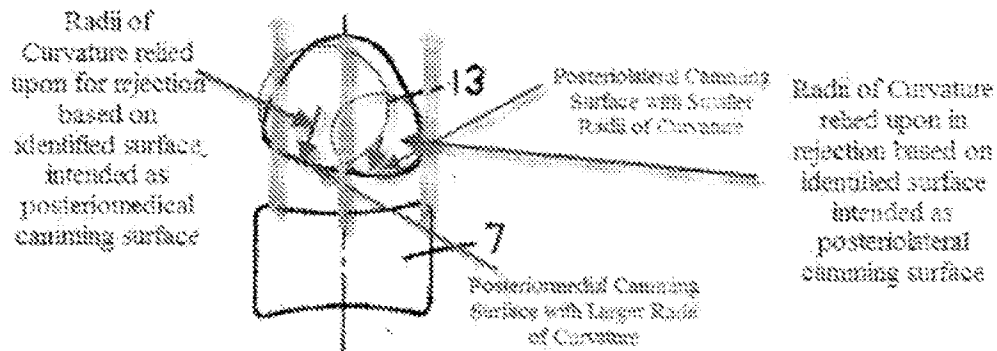
Id. at 7. Appellants' annotated Figure 7B of Suguro shows bearing post 13, where the center of the radius of curvature of the posteriorlateral camming surface (right corner) is displaced outward toward cam 7.

According to Appellants, "[t]here is no mention [in Suguro] of the radius of curvature of the posteriorlateral camming surface being changed."

Id. As such, Appellants assert that Suguro does not disclose that the posteriorlateral camming surface has a smaller radius of curvature than the posteriormedial camming surface, as called for by independent claim 11. *Id.* Appellants further contend that the Examiner's reliance on Suguro's Figure 7B is in error because Suguro does not disclose that Figure 7B is drawn to scale. *Id.* at 9; *see also* Reply Br. 2 (citing *Hockerson-Halberstadt, Inc. v. Avia Group Int'l.*, 222 F.3d 951, 956 (Fed. Cir. 2000)).

In response, the Examiner takes the position that the small circular corner camming surfaces of Suguro's post 13, which Appellants rely on for making their arguments, "are not the 'camming surfaces' relied upon in the Examiner's rejection." Ans. 2–3. According to the Examiner, the "posteriorlateral and posteriormedial surfaces of the post 13 are identified as the surface defined between the respective outer corners to the line of symmetry as depicted in figure 7B." *Id.* at 3. In other words, the Examiner divides the surface connecting the left and right corner surfaces of post 13 into a posteriormedial camming surface from the left corner to the symmetry axis and a posteriorlateral camming surface from the symmetry axis to the right corner. The Examiner then proceeds to draw two circles that are each tangential to the posteriormedial and posteriorlateral camming surfaces, respectively, to show that the radius of curvature of the posteriorlateral

camming surface is smaller than the radius of posteriormedial camming surface. *Id.* To support this finding, the Examiner presents a second annotated Figure 7B of Suguro, as shown below:



... in other words the respective camming surfaces are the surfaces lying between the above identified parallel lines.

Id. at 3. The Examiner's second annotated Figure 7B of Suguro shows bearing post 13, where the posteriorlateral camming surface has a smaller radius of curvature than the posterior medial camming surface.

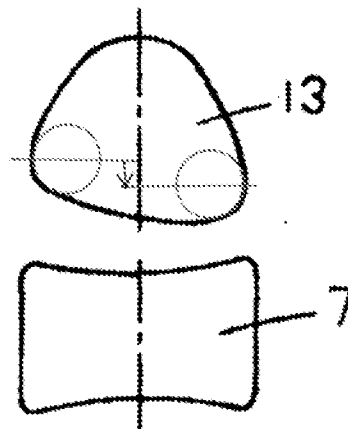
The Examiner further asserts that because "Suguro is clearly relied upon in the anticipation rejection for showing trends of radii of curvature between postero[r]lateral and posteriormedial sides, not exact proportions therebetween," the Examiner's reliance on Suguro's Figure 4 is not in error.

Id. at 4.

It is well settled that a drawing teaches all that it reasonably discloses and suggests to a person of ordinary skill in the art. *In re Aslanian*, 590 F.2d 911, 914 (CCPA 1979). In this case, although Suguro's Figure 7B shows an asymmetric bearing post 13, this does not necessarily mean that the radii of the posteriorlateral and posteriormedial camming surfaces are in the relationship of claim 11, as the Examiner asserts. Although we appreciate

that the Examiner is not using Suguro's Figure 7B to determine exact proportions of the curvature radii, nonetheless, for the reasons explained *infra*, the Examiner's finding that the posteriorlateral camming surface of Suguro's post 13 has a smaller radius of curvature than the posteriormedial camming surface requires speculation on the Examiner's part and is therefore, deficient.

In a first instance, if we consider the left and right corners of Suguro's post 13 as the claimed posteriormedial and posteriorlateral camming surfaces, it is feasible that the radii of the posteriorlateral and posteriormedial camming surfaces are the same and yet form the asymmetric shape of Suguro's post 13. Appellants are correct that such a situation may occur when displacing the center of curvature of the posteriorlateral camming surface, as Suguro discloses in paragraph 36. *See* Appeal Br. 7. A person of ordinary skill in the art may draw two circles, having the same radius and being tangential to each corner surface, but having their centers displaced. This is shown below in our first annotated Figure 7B of Suguro:



Our first annotated Figure 7B of Suguro shows bearing post 13, cam 7, and two circles, having the same radius and being tangential to each corner surface of post 13.

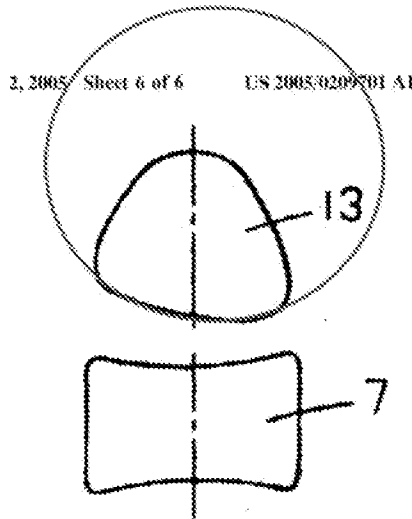
Hence, as the circles in our first annotated Figure 7B of Suguro have the same radius, and yet form the asymmetric shape of Suguro's post 13, the posteriormedial (left corner) and posteriorlateral (right corner) camming surfaces do not necessarily have different radii, as the Examiner finds, and thus the Examiner's finding is speculative. Therefore, in such a case, we agree with Appellants that Suguro does not disclose explicitly or inherently the radii of the posteriormedial (left corner) and posteriorlateral (right corner) camming surfaces as being different. Appeal Br. 7.

Secondly, with respect to the Examiner's alternative interpretation of Suguro's Figure 7B, we note that such an interpretation of the claimed posteriormedial and posteriorlateral camming surfaces is not consistent with Appellant's Specification. Claims are to be given their broadest reasonable interpretation consistent with the Specification, reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). In this case, Appellants' Specification describes outer corners 209, 211 of raised portion 207 as the posteriorlateral and posteriormedial camming surfaces, respectively. Spec. ¶ 40; *see also id.* at Fig. 7.

Accordingly, in light of Appellants' Specification, the Examiner's exclusion of the left and right corner surfaces of Suguro's post 13 is not reasonable.

Furthermore, we note that the Examiner's choice of circles that are tangential to the posteriormedial and posteriorlateral camming surfaces is speculative at best. *See* Ans. 3 (Examiner's second annotated figure 7B of Suguro). For example, a person of ordinary skill in the art could equally have drawn a single circle that is tangential to the entire surface connecting

the outer corners of post 13. Our second annotated Figure 7B of Suguro is shown below:



Our second annotated Figure 7B of Suguro shows bearing post 13, cam 7, and a single circle tangential to the surface connecting the left and right corners of post 13.

Hence, as the circle is tangential to both posteriorlateral and posteriormedial camming surfaces, as identified by the Examiner, the surfaces do not necessarily have different radii, as the Examiner finds, and thus the Examiner's finding is speculative. Therefore, we agree with Appellants that Suguro does not disclose explicitly or inherently the radii of the posteriormedial and posteriorlateral camming surfaces as being different. Appeal Br. 7.

In conclusion, for the foregoing reasons, we do not sustain the rejection under 35 U.S.C. § 102(b) of claims 11 and 15 as being anticipated by Suguro.

Rejections II–IV

Rejections II–IV rely on the Examiner’s finding that the radii of curvature of the first and second camming surfaces of the posterior surface of Suguro’s post 13 are different. *See* Final Act. 4 (citing Suguro ¶ 36, Fig. 7B). However, for the reasons set forth *supra*, the Examiner’s finding is deficient. As such, we agree with Appellants that, “Suguro does not disclose a tibial insert having a raised portion whose posterior surface comprises ‘a first camming surface and a second camming surface having different radii of curvature’,” as called for by independent claim 1. The Examiner’s use of the disclosures of Kaufman and Mihalko does not remedy the deficiencies of Suguro as discussed *supra*.

Therefore, for the same reasons as discussed above, we also do not sustain the rejections under 35 U.S.C. § 103(a) of claims 1–7, 9, and 10, as being unpatentable over Suguro and Kaufman; of claim 8 as being unpatentable over Suguro, Kaufman, and Mihalko; and of claims 13 and 14 as being unpatentable over Suguro and Mihalko.

SUMMARY

The Examiner’s decision to reject claims 1–11 and 13–15 is reversed.

REVERSED