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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JOSHUA McMANUS

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Appeal 2019-006884  
Application 14/532,454  
Technology Center 3700

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Before MURRIEL E. CRAWFORD, PHILIP J. HOFFMANN, and  
BRADLEY B. BAYAT, *Administrative Patent Judges*.

HOFFMANN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the  
Examiner's decision to reject claims 1–13. We have jurisdiction under  
35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in  
37 C.F.R. § 1.42. Under the Real Party in Interest heading of the Appeal  
Brief, Appellant states that “[t]his application is assigned to DePuy Synthes  
Products, Inc. Johnson & Johnson, Inc. is the parent corporation of DePuy  
Synthes Products, Inc.” Appeal Br. 2.

According to the Appellant, the invention relates “to a system and method for the repair of a fractured, shattered[,] or otherwise damaged clavicle using an intramedullary nail” (Spec. ¶ 9), and, more specifically, “to a device for reaming a bone” (*id.* ¶ 3). Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A device for reaming a bone, the device comprising:  
an elongated shaft extending along a first longitudinal axis from a first end to a second end, the elongated shaft being sufficiently longitudinally flexible to enable the elongated shaft to be passed through a path having a curvature of a target bone;  
and  
a reaming head extending along a second longitudinal axis from the second end to a third free end, wherein the first longitudinal axis is parallel to and laterally offset from the second longitudinal axis so that, upon rotation of the shaft, the reaming head rotates eccentrically with respect to the first longitudinal axis.

#### REJECTIONS AND PRIOR ART

The Examiner rejects the claims on as follows:

- I. Claims 1, 2, 10, 12, and 13 under 35 U.S.C. § 102(a)(1) as anticipated by Steudel (DE 910376C, issued May 3, 1954);<sup>2</sup>
- II. Claims 7 and 11 under 35 U.S.C. § 103 as unpatentable over Steudel; and
- III. Claims 1–13 under 35 U.S.C. § 103 as unpatentable over Rupp (US 5,720,749, issued Feb. 24, 1998) and Steudel.

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<sup>2</sup> In this opinion, our reference to Steudel is to an English-language translation on which the Examiner and Appellant rely throughout prosecution.

## ANALYSIS

### Rejection I—Anticipation rejection of claims 1, 2, 10, 12, and 13

We are unpersuaded by the Appellant’s arguments that “Steudel does not teach or suggest ‘a device for reaming a bone’ or ‘a reaming head’ as recited in claim 1.” Appeal Br. 4.

The preamble of claim 1 recites a “device for reaming a bone.” The body of the claim sets forth two components: an elongated shaft, and a reaming head. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention without breathing life into the claim, then the preamble is not afforded considerable patentable weight, and the limitation is of no significance to claim construction. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999). Here, the body of claim 1 sets forth all the limitations of the claimed device, and thus we treat the preamble’s statement “for reaming a bone” as merely a statement of intended use, which does not receive patentable weight.

Appellant argues that the Examiner’s rejection is in error because “Steudel does not provide any teaching or suggestion that its device is suitable for any orthopedic procedure much less for reaming a bone” (Appeal Br. 5), and that Steudel’s reaming head is not “a ‘reaming head’ in the context of such a bone reaming device.” Reply Br. 4. Appellant further argues that it “appears that the Examiner is unfamiliar with the anatomy of long bones” (*id.* at 4) and “misunderstands the operation of the claimed device as well as the environment within which it operates” (*id.* at 5), that Steudel’s device “is not in any way adapted for use in any anatomical

setting” (*id.*) and is “in no way configured to ream a bone” (*id.* at 8), and that the Examiner does not know how Steudel’s device would work “when positioned within a bone” (*id.* at 6).

However, to the extent that we rely on claim 1’s body to recite features of the reaming head, the claim recites only

a reaming head extending along a second longitudinal axis from the second end to a third free end, wherein the first longitudinal axis is parallel to and laterally offset from the second longitudinal axis so that, upon rotation of the shaft, the reaming head rotates eccentrically with respect to the first longitudinal axis.

Appeal Br., Claims App. The claim recitation does not limit the reaming head to use in a bone, or any other anatomical setting. Appellant’s arguments are therefore unpersuasive, because the arguments are not commensurate in scope to limitations present in the claim.

Appellant further argues that “cutting head 12 of Steudel is designed to cut laterally into an existing hole and does not cut beyond the bottom of an existing blind-end bore and thus, operates in a manner completely different from . . . [the] device” as claimed. Reply Br. 8. This argument is similarly not persuasive, because claim 1 does not recite the manner in which the reaming head cuts.

We are not persuaded by Appellant’s further arguments that “Steudel appears to describe a tool for threading a blind hole of a generic workpiece and not for reaming any hole” (Appeal Br. 6–7 (citing Steudel translation ¶¶ 1–3)), and that “the cutting head of Steudel is designed to cut threads into an existing hole” (Reply Br. 9). Steudel indicates not that its tool is used for tapping, but is instead “a back-bone drill, in particular for blind holes with a small diameter, so that a groove can also be inserted directly into the bore

base into which the tapping screw enters.” Steudel ¶ 3. Steudel’s tool thus reams a hole so that a tap may later operate in the hole without problems evidenced in the prior art when the tap reaches the bottom of the hole. *Id.* ¶ 1.

Still further, we are unpersuaded by Appellant’s arguments that Steudel does not disclose a “longitudinally flexible” shaft, but only a shaft that is “elastically compliant” so that “cutting head 12 may be angled with respect to . . . shaft 11 as it enters the blind-end bore hole and then permitted to revert to an initial (non-angled) configuration once removed from the hole.” Appeal Br. 11 (citing ¶¶ 14–15 of Steudel).

Steudel discloses that its tool includes “long conical tapered elastic shaft 3” (Steudel ¶ 10), which is used to cut a groove near the bottom of a drilled hole “into which the tapping screw enters” (*id.* ¶ 3). The flexible shaft allows “the rotating cutting head of the lowering guide cone on the tapered base of the blind hole [to form] . . . a decaying spiral movement[,] which brings the cutting edge into the wall of the blind hole with increasing feed.” *Id.* ¶ 11; *see also id.* ¶ 14 (“During working, the circular approaching of the lowering tip of the guide cone to the lowest point of the hole cone when the shank (ii) is flexed results in an increasing helical movement of the cutting edge (1c) laterally located on the cutting head.”). Steudel thus discloses the flexible shaft functioning while working under rotation, not just while introducing the tool to, and removing it from, the drilled hole.

We also are unpersuaded by Appellant’s argument that “at most, Steudel discloses an elastic, resilient joint that is formed via the conical tapering of the shaft. A resilient joint does not constitute a *longitudinally flexible* shaft.” Appeal Br. 12. However, Steudel in fact discloses “the

lateral elastic resilience of the shaft can be achieved by its own elasticity or by a resilient joint.” Steudel ¶ 7. Therefore, Steudel apparently discloses two embodiments, and Appellant does not argue against the embodiment upon which the Examiner relies.

Based on the foregoing, Appellant does not establish error in the Examiner’s rejection. Thus, we sustain the Examiner’s anticipation rejection of independent claim 1, and of claims 2, 10, 12, and 13 that depend from claim 1, and which Appellant does not argue separately.

*Rejection II—Obviousness rejection of claims 7 and 11 based on Steudel*

Claim 7 depends directly from claim 1, and recites “wherein the first longitudinal axis is laterally offset from the second longitudinal axis by a distance of 0.05–2 mm.” Claim 11 depends directly from claim 1, and recites “wherein the elongated shaft is deflectable in a plane extending orthogonal to the first longitudinal axis along a curve with a radius of 0.3[ ]m–1[ ]m.”

Appellant argues that the Examiner’s obviousness rejection is in error because Steudel fails to disclose the elements of claim 1, and thus cannot render claims 7 and 11 obvious. Appeal Br. 14; *see also* Reply Br. 11. Inasmuch as we do not agree with Appellant that Steudel fails to anticipate claim 1, we are not persuaded of error by this argument.

Appellant also argues that Steudel is non-analogous art, because Steudel describes a tool for threading a blind hole in a generic workpiece (which may be completely unrelated to a bone[]), such as, e.g., wood, metal, rock, etc. . . ., while the present application is directed to an orthopedic surgical device for solving a problem in reaming bone having a particular curvature, such as the S-shaped curvator of the clavicle,

and because “Steudel does not teach or suggest an orthopedic surgical device.” Appeal Br. 14–15; *see also* Reply Br. 11–13. These arguments are unpersuasive because, as we discuss above, Steudel discloses a tool for reaming, rather than threading, and because the claims do not recite limitations for orthopedic surgery.

*Rejection III—Obviousness rejection of claims 1–13 based on Rupp and Steudel*

Appellant’s argue that the rejection of claims 1–13 are in error for reasons similar to those discussed above—i.e., that Steudel is not analogous art to the claimed invention, is designed to cut threads and not ream the bottom of a hole, and “operates in a completely different manner than a device that would ream or create a path within a medullary canal of a bone suitable for receiving an intramedullary nail in the canal,” and thus the combination of Rupp and Steudel fail to disclose a reaming head, as claimed. Appeal Br. 17; *see also* Reply Br. 13–14. These arguments are unpersuasive for the same reasons discussed above.

Regardless, the Examiner finds that Rupp discloses substantially all of the claim features of claim 1, except the axial eccentricity of the head to the shaft, which the Examiner finds is disclosed by Steudel. Final Action 12–15. Appellant does not address these findings. Therefore, this failure provides an independent basis upon which we sustain the Examiner’s obviousness rejection of claim 1.

Appellant does not argue separately against the Examiner’s obviousness rejection of claims 2–13 based on Rupp and Steudel. Accordingly, we also sustain the Examiner’s obviousness rejection of claims 2–13.



CONCLUSION

We AFFIRM the Examiner's anticipation and obviousness rejections.

In summary:

<b>Claim(s)</b>	<b>35 U.S.C. §</b>	<b>Basis/Reference(s)</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2, 10, 12, 13	102(a)(1)	Steudel	1, 2, 10, 12, 13	
7, 11	103	Steudel	7, 11	
1-13	103	Rupp, Steudel	1-13	
Overall Outcome:			1-13	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED