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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRENT L. BUCKS and JEREMY A. LOWDER

Appeal 2018-007593
Application 15/045,529
Technology Center 3700

Before JENNIFER D. BAHR, EDWARD A. BROWN, and
CHARLES N. GREENHUT, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–20. Appellant's representative presented oral argument on March 4, 2020. We have jurisdiction under 35 U.S.C. § 6(b).

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 Black & Decker Inc. Appeal Br.4.

CLAIMED SUBJECT MATTER

Appellant's disclosure "relates to reciprocating saw blades and, more particularly, to reciprocating saw blades with a plunge nose, and to methods of manufacturing such reciprocating saw blades." Spec. ¶ 2.

Claims 1, 10, and 20 are independent claims. Claim 1, reproduced below, illustrates the claimed subject matter.

1. A reciprocating saw blade comprising:
a body formed from a piece of coil stock and having a shank end configured to secure the blade with a reciprocating saw, a plunging end configured to enter a workpiece, a cutting edge extending between the shank end and the plunging end, and a back edge opposite the cutting edge and extending between the shank end and the plunging end,
the cutting edge having a plurality of teeth arranged in a pattern that includes left and right set teeth, and a plurality of gullets disposed between adjacent teeth in the plurality of teeth, each of the plurality of teeth and the plurality of gullets having substantially the same size,
except that a first tooth immediately adjacent the plunging end has been flattened to be unset, a third tooth of the plurality of teeth counting consecutively from the first tooth has been flattened to be unset, and at least a portion of a second tooth of the plurality of teeth counting consecutively from the first tooth has been removed to form an enlarged gullet between the first tooth and the third tooth, the enlarged gullet being larger than the remaining gullets in the plurality of gullets.

Appeal Br. 19 (Claims App.).

REJECTION

Claims 1–20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Grolimund (D482,945 S, issued Dec. 2, 2003) and Thomas (US 2005/0211046 A1, published Sept. 29, 2005).

ANALYSIS

Claims 1–9

Claim 1 recites a reciprocating saw blade comprising, *inter alia*, “a first tooth immediately adjacent the plunging end *has been flattened to be unset*,” “a third tooth . . . counting consecutively from the first tooth *has been flattened to be unset*,” and “at least a portion of a second tooth . . . counting consecutively from the first tooth has been removed to form *an enlarged gullet between the first tooth and the third tooth*.” Appeal Br. 19 (Claims App.) (emphasis added). The Examiner finds that Grolimund discloses a reciprocating saw blade comprising all limitations of claim 1 except “each of the plurality of teeth and the plurality of gullets having substantially the same size” and “the third tooth being unset.” Final Act. 2–3 (citing Grolimund, Figs. 6, 7). The Examiner relies on Thomas as teaching a reciprocating saw blade including a plurality of teeth and gullets of substantially the same size and “a repeating pattern of set and unset teeth.” *Id.* at 3. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify Grolimund to have a plurality of teeth and gullets of substantially the same size and an unset leading tooth, as taught by Thomas, “to provide an alternative arrangement of the cutting teeth to provide uniform cutting action.” *Id.*

Firstly, Appellant contends that Grolimund and Thomas fail to disclose or suggest a first or plunging tooth that has been flattened to be unset, a third or leading tooth that has been flattened to be unset, and an enlarged gullet between the first and third teeth. Appeal Br. 9. In support, Appellant provides a Second Declaration Under 37 C.F.R. § 1.132 of Malek George (hereinafter, “George Declaration” or “Decl.”). Appellant also provides annotated Figures 6 and 7 of Grolimund. *Id.* at 10. Appellant concedes that annotated Figure 7 shows that the right-most “first tooth 1,” which the Examiner equates to the claimed first tooth, is “unset,” but Appellant contends that the “second tooth 3,” which the Examiner equates to the claimed third tooth, “is set to the left.” *Id.* (citing Decl. ¶ 7).

Appellant contends that Thomas does not disclose or suggest the missing features of Grolimund. Appeal Br. 11. Appellant provides an annotated Figure 3 of Thomas, which shows that the first tooth is unset, the second tooth is set left, and the third tooth is set right, as described in Thomas. *Id.* at 12 (citing Thomas ¶ 17; Decl. ¶ 11). Thus, Appellant contends, Thomas does not disclose or suggest “both a first/plunging tooth and a third/leading tooth being flattened to be unset.” *Id.* (citing Decl. ¶ 11). Appellant further contends that it would not have been obvious in view of Thomas to modify the saw blade depicted in Figures 6 and 7 of Grolimund to flatten third/leading tooth 3 to be unset. *Id.* at 13. To the contrary, “Thomas teaches that, in a given sequence of any three teeth, the first tooth is unset, and the second and third teeth are set left and right,” and “Thomas at most teaches or suggests that the third/leading tooth 3 of Grolimund should be set left or right, since the first tooth 1 of Grolimund is already unset.” *Id.* (citing Thomas ¶ 17; Decl. ¶ 12).

As quoted by Appellant, the Examiner states:

Thomas teaches a plurality of teeth with repeating pattern and a plurality of gullets having substantially the same size where first tooth of the repeating pattern being unset. The proposed modification proposes to provide the plurality of teeth design of Thomas in place of the plurality of teeth on Grolimund in order to provide a more uniform cut. *Hence, the third/leading tooth on the modified device of Grolimund which is represented by a first tooth on the repeating pattern of Thomas would be unset as claimed.*

Appeal Br. 13; Final Act. 8 (emphasis added).

Appellant disagrees with the Examiner, contending that the Examiner's proposed modification of Grolimund would result in "two teeth in a sequence of three teeth that are unset," but this tooth arrangement is contrary to Thomas' teaching. Appeal Br. 13. Thus, Appellant contends, it would not have been obvious, in view of Thomas, to modify Grolimund's saw blade "so that two out of the first three teeth are unset, with an enlarged gullet between them." *Id.*²

Appellant's contention is persuasive. The proposed modification of Grolimund appears to apply Thomas' "repeating pattern," but beginning from the "third/leading tooth" of Grolimund. The Examiner does not, however, identify any disclosure in Thomas that supports beginning the repeating pattern at that particular tooth of Grolimund. Nor does the

² Appellant notes that the Examiner states, "providing two consecutive unset teeth in repeating toot [sic] patterns is old and well known in order to achieve different cutting performance as evidenced by Elliston (US 2008/03078936)." Appeal Br. 13n.1; *see* Final Act. 8. However, Appellant notes correctly that Elliston is not applied in any rejection before us in this Appeal. Appeal Br. 13n.1.

Examiner identify any disclosure in Thomas that two consecutive teeth of the saw blade can be “neutral,” that is, not offset, as in the Examiner’s proposed modification. Because the Examiner’s conclusion that it would have been obvious to modify Grolimund in view of Thomas to result in the claimed saw blade is not supported by an adequate factual basis, the legal conclusion is in error. *See In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967) (holding that “[t]he legal conclusion of obviousness must be supported by facts. Where the legal conclusion is not supported by facts it cannot stand.”).

Secondly, Appellant has provided evidence of secondary considerations to rebut the Examiner’s conclusion of obviousness. Appellant states that “making both the first/plunging tooth and the third/leading tooth flattened to be unset resulted in a dramatic and unexpected increase in plunge cutting speed of the saw blade.” Appeal Br. 14 (citing Decl. ¶ 13). Appellant explains that the claimed saw blade was originally designed to have the first/plunging tooth unset, the second tooth removed to create an enlarged gullet, and the third/leading tooth set right. *Id.* The saw blade was redesigned by flattening the third/leading tooth, making both the first/plunging tooth and the third/leading tooth unset. *Id.* at 15 (citing Decl. ¶ 14). Appellant states, “[a]s expected, this design change resulted in cleaner cuts, while still plunging more easily into the workpiece, as depicted below,” but “this modification also *unexpectedly* resulted in significantly faster plunge cutting speed.” *Id.* at 15–16 (citing Decl. ¶ 15) (emphasis added).

As pointed out by Appellant, the Examiner concedes that Appellant has shown “an unexpectedly resulted [sic] faster plunge cutting speed.”

Appeal Br. 16 (quoting Final Act. 8). But despite this concession, the Examiner states, “[the George Declaration] *cannot be persuasive* because the subject matter of the instant application is *clearly obvious* over the prior [art] in the sense of 35 U.S.C. § 103.” Final Act. 8 (emphasis added). *Id.* at 8. The Examiner also states, “the Office action demonstrated *a strong case of obviousness* such that the alleged unexpected results are insufficient to overcome obviousness conclusion.” *Id.* at 9 (emphasis added).

To the extent the Examiner did not consider Appellant’s secondary considerations as evidence against the rejection because the claimed subject matter is “clearly obvious” or a “strong case” of obviousness has been established, this is error. When an applicant submits evidence in response to a rejection, patentability is then determined based “on the totality of the record.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Indeed, “when secondary considerations are present, though they are not always dispositive, it is error not to consider them.” *In re Huai-Hung Kao*, 639 F.3d 1057, 1067 (Fed. Cir. 2011). Accordingly, Appellant’s evidence of secondary considerations must be considered along with the Examiner’s evidence of obviousness. The Examiner’s apparent position that Appellant’s evidence of unexpected results simply *cannot* be persuasive because of the strength of the case of obviousness strongly implies that this evidence improperly was not given proper consideration.

For the foregoing reasons, we do not sustain the rejection of claim 1 or dependent claims 2–9 as unpatentable over Grolimund and Thomas.

Claims 10–20

Claim 10 recites a reciprocating saw blade comprising, *inter alia*, “the cutting edge further includes a plunging tooth . . . and a leading tooth of the

at least four consecutive teeth that is closest to the plunging end, *both the plunging tooth and the leading tooth being unset*,” and “a distance between the plunging tooth and the leading tooth is *at least twice a distance* between each pair of adjacent teeth in the at least four consecutive teeth.” Appeal Br. 20 (Claims App.) (emphasis added). Claim 20 recites a reciprocating saw blade comprising, *inter alia*, “a first tooth immediately adjacent the plunging end *is flattened to be unset*” and “a third tooth counting consecutively from the first tooth *is flattened to be unset.*” *Id.* at 22 (Claims App.) (emphasis added).

For reasons similar to those discussed for claim 1, we likewise do not sustain the rejection of claims 10 and 20, or claims 11–19 depending from claim 10, as unpatentable over Grolimund and Thomas.

DECISION SUMMARY

In summary:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	103(a)	Grolimund, Thomas		1–20

REVERSED