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Row 2: 23413, 7590, 11/07/2016, CANTOR COLBURN LLP, 20 Church Street, 22nd Floor, Hartford, CT 06103
Row 3: EXAMINER PRONE, JASON D
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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* YOUNG HO PARK and BYUNG SUN AN

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Appeal 2014-008542  
Application 12/306,626  
Technology Center 3700

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Before GEORGE R. HOSKINS, BRANDON J. WARNER, and  
FREDERICK C. LANEY, *Administrative Patent Judges*.

HOSKINS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Young Ho Park and Byung Sun An (“Appellants”)<sup>1</sup> appeal under 35 U.S.C. § 134 from the Examiner’s decision rejecting claims 1 and 3–9 in this application. The Board has jurisdiction over the appeal under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> The Appeal Brief identifies Dorco Co., Ltd. as the real party in interest. Appeal Br. 3.

### CLAIMED SUBJECT MATTER

Claim 1 is the sole independent claim on appeal, and it recites:

1. A shaver comprising:
    - a cartridge including:
      - a cartridge body having a rectangular frame shape;
      - a plurality of blades installed in the cartridge body in a horizontal direction of the cartridge body, each of the blades having a front portion bent downwardly from a rear portion thereof;
      - a plurality of pairs of side fixation slots, each pair of the side fixation slots formed on left and right frame portions of the cartridge body, respectively, so as to fix left and right lateral ends of each of the blades;
      - a single supporter provided at a center area between the left and right frame portions of the cartridge body and connecting upper and lower frame portions of the cartridge body; and
      - a plurality of inside fixation slots, each formed on the central supporter so as to fix an inner side portion of each of the blades; and
    - a handle body coupled to the cartridge body;
- wherein each of the inside fixation slots has *a waved groove shape in the horizontal direction of the cartridge body, the waved groove shape defining at least one convex portion to fix and provide a lateral support to the inner side portion of each of the blades* at the center area of the blade.

Appeal Br. 35–36 (Claims App.) (emphasis added).

### REJECTIONS ON APPEAL

Claims 1, 3, 8, and 9 stand rejected under 35 U.S.C. § 103(a) as unpatentable over King (US 2005/0102847 A1, pub. May 19, 2005) “in view of” Barone (US 6,948,249 B2, iss. Sept. 27, 2005) “and evidence references” Ancona ’606 (US Des. 428,606, iss. July 25, 2000), Ancona ’452

(US Des. 410,452, iss. June 1, 1999), and Liptak (US 4,125,243, iss. Nov. 14, 1978). *See* Non-Final Act. 3–5.<sup>2</sup>

Claims 4–7 stand rejected under 35 U.S.C. § 103(a) as unpatentable over King, Barone, Ancona '606, Ancona '452, and Liptak as applied to claim 1, and further in view of Blatter (US 7,526,869 B2, iss. May 5, 2009). *See* Final Act. 5–6.<sup>3</sup>

## ANALYSIS

### A. *Obviousness based on King in view of Barone and evidence references Ancona '606, Ancona '452, and Liptak*

In rejecting claim 1, the Examiner cites King's Figure 5 as disclosing a cartridge for receiving a plurality of blades, including "a supporter provided at an area between the left and right frame portions connecting upper and lower frame portions of the body (38)." Non-Final Act. 3; *see also* King ¶ 53 (discussing "middle bridging members 38" illustrated in Figs. 4–5). The Examiner finds King's middle supports 38 have inside blade fixation slots, with "a grooved shaped in the horizontal direction (39)." Non-Final Act. 3; *see also* King, Figs. 7–9, ¶ 53 (illustrating and discussing "flexible blade supports 39"). The Examiner finds "King in view of Barone . . . fail[s] to disclose the inside fixation slots have a *waved* groove shape *defining at least one convex portion*," as recited in claim 1. Non-Final Act. 4 (emphases added). The Examiner cites Ancona '606 and Ancona '452 as "provid[ing] evidence that the idea of a wavy shaped

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<sup>2</sup> The Office Action from which this appeal is taken is the Non-Final Office Action mailed on March 29, 2013.

<sup>3</sup> The Examiner's statement of rejection does not include Ancona '606, Ancona '452, and Liptak, but we include them here because they are referenced in the rejection of claim 1, from which claims 4–7 depend.

support slot is an alternative to a substantially straight shaped support slot in the art of supporting elongated members,” and cites Liptak as “provid[ing] evidence that it is old and well known in the art of support slots [that] a wavy shape groove can be used for a planar work piece.” *Id.* at 4–5.

Based on those findings, the Examiner determines “it would have been well within [the] technical grasp” of a person of ordinary skill in the art to have made King’s grooved shaped slot “in *any reasonable known shape* including a waved grooved shaped slot.” *Id.* at 5 (emphasis added). The Examiner further determines “[i]t would have been an obvious matter of design choice to make the different portions of the slot of *whatever form or shape* was desired or expedient.” *Id.* (emphasis added). The Examiner cites *In re Dailey*, 357 F.2d 669 (CCPA 1966), for the proposition that “[a] change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results.” *Id.*

The Examiner further reasons the proposed modification of King would have been obvious in order to provide a functional benefit. Non-Final Act. 5. In particular, according to the Examiner:

[I]t would have been obvious to have modified [King’s] inside slots to incorporate a wavy shape to utilize *three* points of contact (or *any other reasonable number*) on each blade *instead of two* points of contact. Slot/holders are known to incorporate different shapes to allow for more points of contact (see [Ancona ’606], [Ancona ’452], and Liptak). It would have also been obvious to incorporate any reasonable known shape to allow for this multiple points of contact (i.e. concave/convex or half of a square or rectangle).

*Id.* (emphases added).

Appellants point out that the “intended use” of each of Ancona ’606, Ancona ’452, and Liptak “is to hold a photo or sign upright resting on an

edge face thereof.” Appeal Br. 18. Appellants contrast such usage with the intended use of King and Barone, which Appellants describe as “to laterally support a side or face portion of a blade” to perform a cutting function. *Id.* at 18–19, 26. Appellants contend the Examiner has not explained adequately why a person of ordinary skill in the art would have “bridge[d] the technical and/or informational gap between” these two kinds of devices, to arrive at the invention of claim 1. *Id.* at 19, 26–27. Appellants further argue the Examiner’s modification does not result in the alleged improvement of providing more contact points in King, because King’s blade supports 39 are “already in complete contact with” the supported blades. *Id.* at 20–21 (citing King, Figs. 8–9).

We determine the Examiner’s rejection fails to provide a rational underpinning to support the legal conclusion of obviousness. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (*cited with approval in KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)). The Examiner’s “design choice” rationale concludes it would have been obvious to shape King’s blade supporting grooves to have “any reasonable known shape” or “whatever form or shape was desired or expedient.” Non-Final Act. 5. That rationale overlooks the fact that King’s groove functions to hold a cutting blade securely in position within a razor head to perform a cutting operation over a person’s skin. *See King*, Abstract, ¶¶ 46–48. Some groove shapes will perform that function adequately, other groove shapes will not. Not just any groove shape will do. To support the obviousness of modifying King’s blade support grooves 39 to have the claimed “waved . . . shape defining at least one convex portion,” the Examiner needs to provide an affirmative rationale for why that specific groove shape would have been used to hold a

cutting blade securely in position within a razor head to perform a cutting operation over a person's skin.

Ancona '452 discloses a waved groove shape defining at least one convex portion, for supporting a photograph vertically in a mount on a level surface. Ancona '452, Title, Figs. 1, 6. Liptak also discloses a waved groove shape defining at least one convex portion, for supporting a sign card or board vertically in a mount on a level surface. Liptak, Abstract, Figs. 1–3. However, as Appellants contend, the Examiner has not provided a sufficient reason why a person of ordinary skill in the art would have modified King's groove to have such a shape, when King's groove is used for the very different purpose of holding a cutting blade securely in position within a razor head to perform a cutting operation over a person's skin.

The Examiner posits such would have been obvious to provide “three” or “any other reasonable number” of contact points between King's blades and its blade supports, “instead of two” contact points. Non-Final Act. 5. Given the structure of King's blade supports 39, it is not clear what “two” contact points the Examiner finds would be improved by having three or more contact points. *See* King, Figs. 7–9, ¶ 53. We further agree with Appellants that King's blade supports 39 are in “complete contact” with the supported blades. Appeal Br. 20–21. In light of these considerations, the Examiner's finding that King would have been improved by using the claimed waved groove shape is not supported by a preponderance of the evidence.

For the foregoing reasons, we do not sustain the rejection of claim 1 as unpatentable over King in view of Barone and evidence references Ancona '606, Ancona '452, and Liptak. The Examiner's additional

consideration of dependent claims 3, 8, and 9 does not cure the noted deficiency as to claim 1. Non-Final Act. 3–4. Thus, we likewise do not sustain the rejection of claims 3, 8, and 9.

*B. Obviousness based on King in view of Barone and evidence references Ancona '606, Ancona '452, and Liptak, and further in view of Blatter*

Claims 4–7 depend directly or indirectly from independent claim 1. Appeal Br. 36–37 (Claims App.). The Examiner's additional consideration of claims 4–7 in view of Blatter does not cure the deficiency of the other cited art concerning claim 1, discussed above. Non-Final Act. 5–6. Therefore, we do not sustain the rejection of claims 4–7 as unpatentable over King in view of Barone, Ancona '606, Ancona '452, and Liptak as applied to claim 1, and further in view of Blatter.

DECISION

The Examiner's decision to reject claims 1 and 3–9 is reversed.

REVERSED