

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TETSUYA KUZE

Appeal No. 2006-0190
Application No. 10/113,567

HEARD: JANUARY 26, 2006

Before OWENS, WALTZ and FRANKLIN, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from a rejection of claims 1 and 3-5, which are all of the pending claims.

THE INVENTION

The appellant claims a pneumatic tire comprising sipes having walls with specified shapes and angles. Claim 1 is illustrative:

1. A pneumatic tire including multiple blocks formed on a tread face and defined by and between a plurality of main grooves extending in a circumferential direction of the tire and by and between a plurality of sub grooves intersecting the main grooves, in which zigzag sipes

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extending in a width direction of the tire are provided on and into surfaces of the blocks,

wherein the sipes are formed by shifting pitches of a zigzag shape on a tread face side of the sipe and a zigzag shape on a bottom side thereof in the width direction of the tire,

and in the case of viewing concave and convex points according to a visual direction E along the circumferential direction of the tire, connecting a convex flexion point of the zigzag shape on the tread side and a concave flexion point of the zigzag shape on the bottom side which are facing each other, a concave flexion point of the zigzag shape on the tread side and a convex flexion point of the zigzag shape on the bottom side which are facing each other, and the convex points of the both zigzag shapes which are adjacent to each other, severally with edge lines, and

interlinking the edge lines serially by planes in the width direction of the tire,

wherein one of wall surfaces sectioned by the sipe is formed into a concavo-convex face A in which convex triangular pyramids and convex reverse triangular pyramids are alternately arranged in the width direction of the tire, and the other wall surface is formed into a concavo-convex face B in which concave triangular pyramids and concave reverse triangular pyramids are alternately arranged in the width direction of the tire,

wherein a plurality of the concavo-convex faces A sectioned to be adjacent by the sipes are disposed in each of the two outermost positions in the circumferential direction of the block to be oriented outward from the block, and

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wherein angles of inclination of the edge lines, which severally connect the convex flexion points and the concave flexion points between the zigzag shapes on the tread face side and the bottom side facing one another, with respect to a direction of diameter of the tire are set in a range from 10° to 35° when the edge lines are projected onto a plane orthogonal to a direction extending from the sipe.

THE REFERENCES

Maük et al. (Maük)	4,566,514	Jan. 28, 1986
Kleinhoff et al. (Kleinhoff)	US 2002/0053383 A1	May 9, 2002 (filed Mar. 24, 1999)
Katayama	6,427,737	Aug. 6, 2002 (filed Apr. 21, 1999)

THE REJECTIONS

Claims 1 and 3-5 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellant regards as the invention, and under 35 U.S.C. § 103 as being obvious over Maük in view of Katayama and optionally further in view of Kleinhoff.¹

¹ JP 6-48123, which the examiner optionally relied upon in the final rejection (page 3) as an alternative to Kleinhoff, is not included in the statement of the rejection in the examiner's answer. Hence, we consider the examiner's reliance upon JP 6-48123 to be withdrawn.

OPINION

We reverse the aforementioned rejections.

Rejection under 35 U.S.C. § 112, second paragraph

The examiner argues that "a plurality of the concavo-convex faces A sectioned to be adjacent by the sipes" is ambiguous because faces A (upward pointing combinations of triangular faces in figure 2A) are not adjacent but, rather, are separated by faces B (downward pointing combinations of triangular faces in figure 2A) (answer, pages 3-4).

To be adjacent, faces A need not be in direct contact. See *Free Motion Fitness Inc. v. Cybex Int'l Inc.*, 423 F.3d 1343, 1348, 76 USPQ2d 1432, 1436-37 (Fed. Cir. 2005). Regardless, faces A in the appellant's figure 2A are in contact with other faces A at their lower corners even though their upper portions are separated by faces B.

Thus, the faces A are adjacent. Consequently, we reverse the rejection under 35 U.S.C. § 112, second paragraph.

Rejection under 35 U.S.C. § 103

The appellant's claims require that angle θ in figure 2A is 10-35°.

Maük discloses a tire comprising sections 10 and 11 in figures 3 and 6 having an angle with one another of approximately

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30-100° formed by twist about a radial axis shown at 12 in those figures (col. 2, line 68; col. 3, lines 33-35). Also, "sections 10 and 11 are both inclined at approximately 45° to the circumferential direction of the tire, yet rise in opposite directions, with one rising to the left and the other to the right" (col. 3, lines 1-4). The 45° angle is shown in figure 4 which is a cross-sectional view of figure 3 (col. 1, line 53).

The examiner argues that Maük's figure 4 "reasonably conveys inclining the sidewall of the slit at a relatively small acute angle with respect to the radial axis" (answer, page 10), and that "Mauk et al is not limited to sections 10 and 11 being both inclined at approximately 45 degrees to the circumferential direction for the simple reason that Mauk et al describes and claims a broad range of 30 to 100 degrees for the twist angle" (answer, pages 15-16).

The angle shown at 12 in Maük's figures 3 and 6 formed by twist about a radial axis is a different angle than the 45° angle in the circumferential direction shown in Maük's figure 4. The examiner has not provided evidence or reasoning which shows that

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Maük's disclosure of angles in figures 3 and 6 below 45° formed by twist about the radial axis would have fairly suggested, to one of ordinary skill in the art, reducing the circumferential direction angle in figure 4.

The examiner does not rely upon Katayama or Kleinhoff for any disclosure that remedies the above-discussed deficiency in Maük.

We therefore conclude that the examiner has not established a prima facie case of obviousness of the appellant's claimed invention.

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DECISION

The rejections of claims 1 and 3-5 under 35 U.S.C. § 112, second paragraph, and under 35 U.S.C. § 103 over Maük in view of Katayama and optionally further in view of Kleinhoff, are reversed.

REVERSED

TERRY J. OWENS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
THOMAS A. WALTZ)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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BEVERLY A. FRANKLIN)	
Administrative Patent Judge)	

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