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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Specialized Bicycle Components, Inc.
Requester and Appellant

v.

K.G. Motors, Inc.
Patent Owner and Respondent

Appeal 2011-010680 Reexamination Control 95/001,125 Patent 7,334,846 B2 Technology Center 3900

Before ROMULO H. DELMENDO, JEFFREY B. ROBERTSON, and DANIEL S. SONG, *Administrative Patent Judges*.

ROBERTSON, Administrative Patent Judge.

DECISION ON APPEAL

Third-Party Requester Specialized Bicycle Components, Inc. appeals under 35 U.S.C. §§ 134(c) and 315(b) from the Examiner's refusal to reject claims 1-29 on various grounds and confirmation of the patentability of these claims. Patent Owner K.G. Motors, Inc. urges that the Examiner's decision must be affirmed. We have jurisdiction under 35 U.S.C. §§ 134(c) and 315(b). We reverse the Examiner's decision not to reject claims 1-29. By operation of rule, our reversal of the Examiner's decision not to enter the Requester's proposed rejections constitutes a new ground of rejection and, therefore, our decision is not final for purposes of further judicial review. *See* 37 C.F.R. § 41.77(b).

STATEMENT OF THE CASE

United States Patent 7,334,846 B2 (hereinafter the "846 Patent"), which is the subject of the current *inter partes* reexamination, issued to Stanley F. Koziatek on Feb. 26, 2008.

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¹ See Requester's Appeal Brief 4 (filed January 25, 2011) [hereinafter Req. App. Br.]; Examiner's Answer 4-8 (mailed April 29, 2011) [hereinafter Ans.]; Right of Appeal Notice (mailed September 14, 2010) [hereinafter RAN.].

² See Patent Owner's Respondent Brief (filed February 25, 2011 [hereinafter Req. Resp. Br.].

Requester's objection to the length of Patent Owner's Respondent Brief is noted. Requester's Rebuttal Brief 1-2 (filed May 31, 2011) [hereinafter Req. Reb. Br.] However, in light of the stage of the current proceedings and our disposition of the appeal as discussed infra, Patent Owner's violation of the rules is considered harmless error.

We are also informed that the '846 Patent is the subject of litigation styled *K.G. Motors, Inc. d/b/a NoTubes v. Specialized Components, Inc.*, Case No. 08-CV-6422-MAT, United States District Court for the Western District of New York, the proceedings of which have been stayed. (Req. App. Br. 3; PO Resp. Br. 1.)

We heard oral arguments from both the Patent Owner and Requester on November 16, 2011, a written transcript of which was entered into the electronic record on December 22, 2011.

The '846 Patent relates to bicycle wheel rims. (Col. 1, ll. 5-9.) Figure 4 of the '846 Patent is reproduced below.

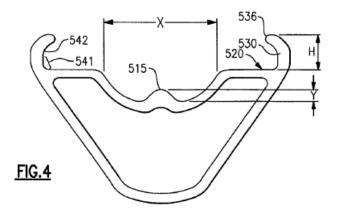


Figure 4 above is a cross-sectional view of a bicycle wheel rim having a sidewall 530 with distal end 536 with a height H of less than or equal to 0.200 inches, a bead seat 520, a hump 514 (number not shown) with distal point 515. (Col. 3, Il. 43-50; col. 4, Il. 9-16, 51; col. 5, Il. 5-7.)

Claims 1, 4, and 6, which are illustrative of the appealed subject matter, read as follows:

1. A bicycle wheel rim onto which a tubeless tire can be mounted, comprising:

a base portion having a proximal surface engageable with a spoke member and an opposing distal surface engageable with

> a surface of a tire bead of the tubeless tire, wherein the distal surface has a trough, and, in cross sectional profile, a flat bead seat immediately adjacent and contiguous with the trough to an intersection point with a respective sidewall surface such that the tire bead rests on the flat bead seat when mounted; and

an integral sidewall extending from an intersection of the proximal surface and the distal surface, wherein a most distal point of the sidewall extends no further than 0.200 inches above the flat bead seat of the distal surface of the rim,

wherein the bead seat is horizontally disposed with respect to an axial direction of the rim so that when the tire is mounted, the tire bead is pressed between the flat bead seat and the sidewall to provide a ball and socket fit.

- 4. The rim of claim 1, wherein the distal surface of the rim has a central hump such that the trough is contiguous with the central hump.
- 6. The rim of claim 1, wherein the sidewall has an inwardly curved inner surface and does not include a bulbous bead lock portion, such that a thickness of the sidewall is not increased from where the sidewall begins to extend inwardly to the distal point of the sidewall in a direction extending from the bead seat towards the distal point.

(Req. App. Br. 59, Claims App'x.)

Requester relied on the following as evidence of unpatentability:

Chen	US 6,402,255 B1	Jun. 11, 2002
Okajima '766	US 6,568,766 B1	May 27, 2003
Okajima '307	US 7,090,307 B2	Aug. 15, 2006
Veux	US 7,104,300 B2	Sep. 12, 2006

Patent Owner relies on the following as evidence of patentability:

Declaration of Michael Bush executed on April 12, 2010 (Hereinafter "the Bush Declaration").

Declaration of Stanley Koziatek executed on April 12, 2010 (Hereinafter "the Koziatek Declaration").

Requester contests the Examiner's refusal to reject the claims as follows:

- I. Claims 1-3, 6-8, 12, 19-26, 28, and 29 under 35 U.S.C. § 102(e) as being anticipated by Okajima '307;
- II. Claims 1-3, 7, 8, 12, 20-26, 28, and 29 under 35 U.S.C.§ 103(a) as being obvious over Okajima '307 in view of Okajima '766;
- III. Claims 4, 5, 9, 10, and 27 under 35 U.S.C. § 103(a) as being obvious over Okajima '307 in view of Chen and Veux, or Okajima '307 in view of Okajima '766 in view of Chen;
- IV. Claims 6 and 19 under 35 U.S.C. § 103(a) as being obvious over Okajima '307 in view of Okajima '766, further in view of Chen;
- V. Claim 11 under 35 U.S.C. § 103(a) as being obvious over Okajima '307 in view of Tien or Veux, or Okajima '307 in view of Okajima '766, further in view of Veux;
- VI. Claim 13 under 35 U.S.C. § 103(a) as being obvious over Okajima '307 in view of Chen or Okajima '307 in view of Okajima '766 further in view of Chen or Veux; and

VII. Claims 14-18 under 35 U.S.C. § 103(a) as being obvious over Okajima '307 in view of Okajima '766 or Veux.

35 U.S.C. § 102 Rejection ISSUE

Requester's position with respect to Okajima '307 is that the sidewall height recited in the claims can be derived from the drawings in Okajima '307 in light of the disclosed sidewall thickness range or the diameter of the spoke opening in Okajima '307. (Req. App. Br. 11-12.)

Patent Owner contends that there is no indication that the figures in Okajima '307 are drawn to scale and that Requester has picked certain dimensions to support their position while ignoring other dimensions in relation to the Figures, which when taken into consideration, result in different scales for the drawings. (PO Resp. Br. 5-7.) Thus, Patent Owner argues that Okajima '307 does not anticipate the claims. The Examiner agrees with Patent Owner. (Ans. 4-6.)

Accordingly, the dispositive issue is: Did the Examiner err in finding that Okajima '307 does not disclose the sidewall heights recited in the claims?

FINDINGS OF FACT ("FF")

1. Okajima '307 discloses a bicycle wheel with a reinforced rim for tubeless tires. (Col. 1, ll. 15-17; col. 6, l. 14.)

2. Figure 8 of Okajima '307 is reproduced below:

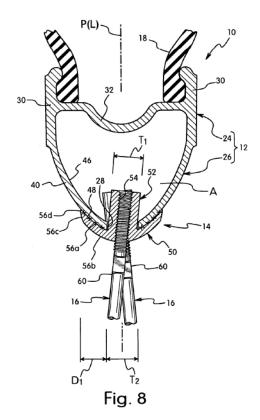


Figure 8 above is a partial cross-sectional view of a bicycle wheel with reinforced rim 12 having outer annular portion 24 and inner annular portion 26, where outer annular portion 24 includes annular side section 30, annular connecting section 32, tubular section 52 having diameter T₁, attachment opening 28 with diameter T₂ (Col. 2, Il. 40-42, 65-67; col. 5, Il. 14-19, 55-65; col. 6, Il. 6-14.)

3. Okajima '307 discloses annular side members 30 are about 1.1 to about 1.4 millimeter thick, the T_1 opening having a diameter

- of about 4.3 millimeters, and a T_2 having a diameter of at least about 5.0 millimeters. (Col. 5, ll. 61-63; col. 9, ll. 6-14.)
- 4. Okajima '307 is silent as to whether the Figures are drawn to scale. (*See* col. 2, 1. 35 col. 3, 1. 67.)

PRINCIPLE OF LAW

Although figures are available as references, including figures with accidental disclosures, such disclosures must be "clearly made." *In re Seid*, 161 F.2d 229, 231 (CCPA 1947); see also *In re Mraz*, 455 F.2d 1069, 1072 (CCPA 1972).

ANALYSIS

We agree with the Examiner's and Patent Owner's position that Okajima '307 does not disclose a that a distal point of a sidewall extends no further than 0.200 inches above the flat bead seat of the distal surface of the rim (hereinafter also referred to as "sidewall height"). We are of the opinion that the drawings in Okajima '307 may not be relied on to derive the sidewall heights, because there is no indication in Okajima '307 that the figures are drawn to scale. (FF 2, 4.) Indeed, as Patent Owner points out, in addition to the dimensions relied on by Requester, there are dimensions disclosed in Okajima '307, such as the dimensions for T1, that when used in conjunction with the figures to derive the sidewall height in accordance with Requester's method, result in a height greater than the 0.200 inch upper limit recited in claim 1. (PO Resp. Br. 6; FF 2, 3.) Such variances in calculated sidewall heights clearly indicate that the drawings in Okajima '307 are not

drawn to any particular scale, and thus cannot be used to calculate the sidewall heights recited in the claims.

Accordingly, we affirm the Examiner's decision not to reject the claims as being anticipated by Okajima '307 because Okajima '307 does not disclose that a distal point of a sidewall extends no further than 0.200 inches above the flat bead seat of the distal surface of the rim as required by the claims.

35 U.S.C. § 103 Rejections ISSUES

Requester contends that Okajima '766 discloses a bicycle rim having a sidewall height of between about 4.5 millimeters and about 6.5 millimeters, which converts to 0.177 inches and 0.256 inches. (Req. App. Br. 16, 18.) Requester argues that it would have been obvious to modify Okajima '307 to have a sidewall height within the claimed range in order to produce a rim for a tubeless tire that is relatively strong, but relatively lightweight, as well as to provide a product that is less expensive to produce by virtue of the use of less material. (Req. App. Br. 18-19.)

Regarding claim 4, Requester contends that while Okajima '307 is silent as to the presence of a hump, Chen discloses a hump and trough configuration to facilitate the installation of the tire, and Veux discloses a hump to stiffen a sealing strip, such that would have been obvious to include a hump in the rim of Okajima '307 for the purposes disclosed in Chen or Veux. (Req. App. Br. 21-22.)

Regarding claim 6, Requester contends that Okajima '307 does not disclose edges of sidewalls that are enlarged or bulbous, which is excluded by the claim, and to the extent Okajima '307 may include a bulbous bead lock portion, Chen discloses a sidewall having a thickness that does not substantially increase from its base to its distal point. (Req. App. Br. 24-26.) Requester argues that it would have been obvious to provide a rim with a sidewall without a bulbous bead lock portion as an obvious design choice to minimize the material used and provide a uniformly shaped rim sidewall for engaging a tire. (Req. App. Br. 26.)

Patent Owner contends that there is no reason, absent hindsight, to modify Okajima '307 to have the sidewall heights recited in the instant claims. (PO Resp. Br. 11-12.) Patent Owner argues that distance D2 in Okajima '766, relied upon by Requester as being representative of the sidewall height, "is not intended to represent how far a most distal point of a sidewall extends above the flat bead seat of the rim" but only "a distance taken from an 'imaginary line L1 passing through the pair of outer corners 62a.' Okajima '766, 7:21-23." (PO Resp. Br. 12.) Patent Owner also argues that each aspect of a rim's design has an effect on the weight, strength, durability, and manufacturability, as well as the mechanical properties including stress and strain on the rim. (PO Resp. Br. 14.) As a result, Patent Owner argues that one of ordinary skill in the art would not have selected one of the dimensions of Okajima '766, without the others, such as the slanted bead seat disclosed in Okajima '766, which is in contrast to the flat bead seat required in claim 1. (PO Resp. Br. 14-16.) Thus, Patent

Owner contends that in combining Okajima '307 with Okajima '766, one would not have arrived at the bicycle wheel rim disclosed in claim 1.

Regarding claim 4, Patent Owner contends that Chen discloses a circular disk 6 that connects the rim to a hub as an alternative to using spokes, where vaulted protrusion 33 creates a recess for accepting disk 6. (PO Resp. Br. 19.) Patent Owner argues that since neither Okajima '307 nor Okajima '766 utilizes a disk, there would be no reason to apply the vaulted protrusion of Chen. (PO Resp. Br. 19-21.) Regarding Veux, Patent Owner contends that the rim base 71 disclosed in Veux, which contains the central rib 70, is not part of the rim, but lines the inside of rim 1. (PO Resp. Br. 21.) Patent Owner argues that there would have been no reason to incorporate the rim base 71 into the structure of Okajima '307. (PO Resp. Br. 21-22.)

Regarding claim 6, Patent Owner argues that the '846 Patent discloses that prior art rims contain a bulbous bead lock portion and that "[s]imilarities between Figure 1 of the '846 Patent and Chen can be observed, such that Chen in combination with Okajima '307 and Okajima '766 do not disclose the features of claim 6 and its independent claim." (PO Resp. Br. 22.)

Thus, the dispositive issues with respect to the obviousness rejections are:

Does the combination of Okajima '307 and Okajima '766 render the limitation "a most distal point of the sidewall extends no further than 0.200 inches above the flat bead seat of the distal surface of the rim" prima facie obvious?

Would it have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated a hump as disclosed in Chen or

Veux into a bicycle wheel rim resulting from the combination of Okajima '307 in view of Okajima '766 as recited in claim 4?

Does Okajima '307 or Okajima '307 in view of Chen disclose or render obvious a sidewall which does not include a bulbous bead lock portions as recited in claim 6?

If sufficient evidence of obviousness is present, does the evidence of secondary considerations outweigh the evidence in support of obviousness?

ADDITIONAL FINDINGS OF FACT ("FF")

- 5. Okajima '766 disclose a bicycle rim for use with a tubeless tire. (Col. 1, ll. 12-13.)
- 6. Figure 5 of Okajima '766 is reproduced below:

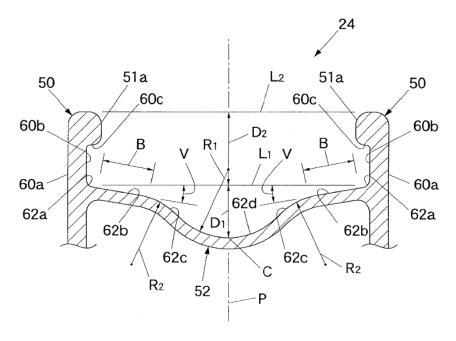


Fig.5

Figure 5 above depicts a partial cross-sectional view of the outer portion of a bicycle rim 24 with annular side portions 50, with imaginary line L_1 passing through a pair of outer corners 62a, imaginary line L_2 passing through the outer peripheral edges of the annular side portions 50, where L_1 and L_2 are spaced apart by distance D_2 of about 4.5 to about 6.5 millimeters. (Col. 4, Il. 1-6; col. 7, Il. 16-33.)

- 7. The '846 Patent discloses that rim sidewalls typically have a height dimension of about 0.225 inches to greater than or equal to 0.265 inches for a conventional bicycle rim. (Col. 1, ll. 50-53.)
- 8. Figure 1 of the '846 Patent is reproduced below:

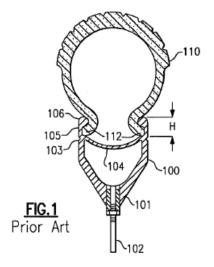


Figure 1 above is a cross-sectional view of a bicycle wheel rim known in the prior art. (Col. 3, 11. 40-42.)

9. Chen discloses a bicycle wheel rim that is capable of mounting selectively with a circular disc and a set of spokes. (Col. 1, ll. 8-10.)

10. Figure 4 of Chen is reproduced below:

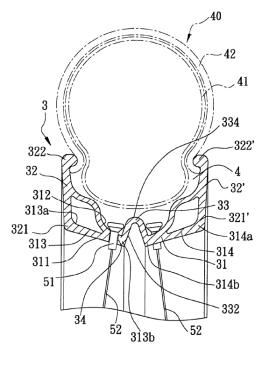


FIG. 4

Figure 4 above depicts a fragmentary cross-sectional view of a bicycle rim incorporating an annular portion 334 and spokes 52. (Col. 2, ll. 20-22, col. 2, l. 40-col. 3, l. 17.)

- 11. Chen discloses that in the embodiment of Figure 4, the bicycle rim 3 can be mounted with a circular disc or spokes. (Col. 4, ll. 6-9.)
- 12. Veux discloses a sealing strip to be used with a rim with a wheel. (Col. 1, ll. 15-20.)

13. Figure 7 of Veux is reproduced below:

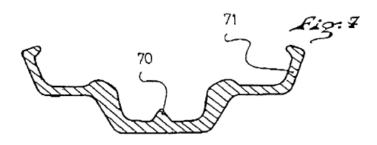


Figure 7 above depicts a sealing strip 71 with a central rib 70, which stiffens the structure of sealing strip 71. (Col. 6, ll. 50-56.)

ADDITIONAL PRINCIPLES OF LAW

Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007). In *KSR*, the Supreme Court explained, "[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, \$103 likely bars its patentability." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR Int'l Co. 550 U.S.* at 421.

It is well established that "it is not necessary that the inventions of the references be physically combinable to render obvious the invention under review." *In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983). In addition,

"[c]ombining the *teachings* of references does not involve an ability to combine their specific structures." *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (emphasis in original).

ANALYSIS

Okajima '307 in view of Okajima '766 Claims 1 and 23

We agree with Requester, that it would have been obvious to have provided the rim disclosed in Okajima '307 with a sidewall height of 0.200 inches or less in view of Okajima '766. Okajima' 307 is silent as to the sidewall height as discussed in conjunction with the rejections under 35 U.S.C. § 102. Both Okajima '307 and Okajima '766 are directed to bicycle rims for tubeless tires. Okajima'766 describes a distance D₂, which corresponds to a sidewall height of between about 4.5 millimeters and about 6.5 millimeters (0.177 inches to 0.256 inches) (FF 6; Req. App. Br. 12-13, 18), and significantly overlaps the claimed range. Accordingly, one of ordinary skill in the art would have turned to Okajima '766 for guidance in order to determine the appropriate heights for bicycle rims, including sidewall heights falling within the range recited in claim 1. That is, the determination of appropriate heights in Okajima '307 by routine experimentation, taking into account the disclosure of Okajima '766 for a similar rim, would have been within the level of the ordinary skill in the art.

We are unpersuaded by Patent Owner's argument that the measurement D_2 is an imaginary line that bears no relation to sidewall height. It is clear from Okajima '766 that the line D_2 is defined at one end

by L_2 , which is representative of the distal end of the sidewall height, and at the other end by L_1 , which is representative of the proximal end of the sidewall where it meets the bead seat. (FF 6.) Thus, we find D_2 to be an appropriate representation of the sidewall height in Okajima '766.

In addition, we are also not persuaded by Patent Owner's contentions that one of ordinary skill in the art would not have applied the sidewall height disclosed in Okajima '766 alone, without utilizing the other design aspects of the bicycle rim disclosed therein, to the bicycle rim disclosed in Okajima '307. Although Okajima '766 discloses that the combination of features disclosed therein aids in mounting a tubeless tire (PO Resp. Br. 15), there is no indication in either Okajima '307 or Okajima '766 that bicycle rims in accordance with Okajima '307 configured to have a sidewall height of less than 0.200 inches would form a bicycle rim that would be incapable of receiving a tubeless tire or otherwise be unusable. Moreover, while Patent Owner contends that conventional bicycle tire rims are disclosed in the '846 Patent as having a sidewall height of between 0.225 inches to greater than 0.265 inches, Okajima '766 itself provides evidence that bicycle rims having sidewalls of less than 0.200 inches were known. (FF 6.) Thus, we cannot agree with Patent Owner's contentions.

Regarding claim 23, which requires that the distal most point of the sidewall "extends between 0.150 inches to 0.175 inches above the flat bead seat," Okajima '766 discloses sidewall heights as low as about 0.177 inches. (FF 6; Req. App. Br. 12-13.) Thus, there is a difference of 0.002 inches between the upper limit of the sidewall height recited in claim 23, and the lower limit of the sidewall disclosed in Okajima '766. However, the '846

Patent does not indicate that a sidewall height of 0.175 inches would produce unexpected results such that one of ordinary skill in the art would have expected the difference of 0.002 inches to result in any appreciable difference in properties or performance of the rim. Therefore, these values are sufficiently close to establish a *prima facie* case of obviousness. *See Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985).

Claim 4

We agree with Requester that adding a central hump to the bicycle wheel rim of Okajima '307 and Okajima '766 in view of Chen or Veux as recited in claim 4 would have been obvious to one of ordinary skill in the art. Specifically, in view of Chen, it would have been obvious to add a central hump with a corresponding recess to accommodate a circular disc instead of, or alternate to, the spokes in the bicycle rim of Okajima '307 and Okajima '766. Chen discloses a rim which can be connected to the hub via a circular disc or via spokes. (FF 10, 11.) Therefore, it would have been obvious to one of ordinary skill in the art to have included the addition of a central hump with a corresponding recess to the bicycle wheel rim of Okajima '307 and Okajima '766 to provide such flexibility in the use of a disc or spokes, while also minimizing the weight of the rim and the amount of material therefor.

We also agree with Requester that it would have been obvious to have added a ridge or hump to the bicycle rim of Okajima '307 and Okajima '766 in view of Veux. Patent Owner's arguments that the central rib 70 is formed

on rib base 71, which is placed on top of the bicycle rim and not the rim itself is not persuasive, because it focuses on the bodily incorporation of Veux rather than the what the prior art as a whole would disclose to one of ordinary skill in the art. Veux discloses that the central rib 70 stiffens the structure of the rim base 71. (FF 12-14.) We have not been directed to persuasive evidence that one of ordinary skill in the art would not have been able to apply the concept of adding material in order to provide stiffness to the rim itself rather than the rib base or that additional material provided on the rim would not also have a stiffening effect on the rim itself.

Claim 6

We are in agreement with Requester that Okajima '307 and Chen disclose or suggest the limitations of claim 6. In particular, we do not ascertain any particular increase in the thickness of the sidewalls in Okajima '307 as the sidewall begins to extend inwardly to the distal point of the sidewall as shown in the Figures. (FF 2.) Likewise, Chen appears to disclose a point where the sidewall extends inwardly at a 90 degree angle, rather than an increase in thickness of the sidewall. (FF 10.) Thus, contrary to Patent Owner's arguments that each of Chen and Okajima '307 discloses a similar structure to Figure 1 of the '846 Patent, these references appear to disclose different structures for the sidewalls as they turn inwardly and extend to the distal point of the sidewall. (FF 2, 8, 10.)

Therefore, as Patent Owner has not articulated with any specificity the basis for the position that the prior art discloses bulbous bead portions, we

reverse the Examiner's decision not to reject claim 6 as proposed by the Requester.

Secondary Considerations

Having determined that the prior art of record establishes a prima facie case of obviousness of the claims on appeal, we now turn to the evidence of secondary considerations of record in order to evaluate whether such evidence outweighs the evidence of record in support of obviousness.⁴

Patent Owner contends that the Declaration of Michael Bush provides evidence of unexpected results and long-felt need and that the Declaration of Stanley Koziatek provides evidence of competitor copying. (PO Resp. Br. 16, 17-18.)

Requester argues that the Declarations presented by Patent Owner are insufficient to overcome the evidence in support of the obviousness rejections discussed supra. (Req. Reb. Br. 7-17.)

⁴ Requester disputes whether the Declarations of Stanley Koziatek and Michael Bush were properly submitted in response to the Examiner's Request for Information under 37 C.F.R. § 105. (Req. Reb. Br. 6-7.) However, this is not an appealable issue, but should have been challenged by way of timely petition to the Director in accordance with 37 C.F.R. § 1.181. The Examiner noted the Response to the Request for Information filed by Patent Owner as well as Requester's own response. (RAN 2-3.) Accordingly, the evidence was entered into the record by the Examiner. Although the Examiner did not discuss the Declarations of Stanley Koziatek and Michael Bush, presumably because the rejections of record were withdrawn, we are compelled to do so in the present opinion as a result of our reversal of the Examiner's decisions not to reject the claims.

PRINCIPLES OF LAW

Once a prima facie case of obviousness has been established, objective evidence of secondary considerations must be considered in making an obviousness decision. *See Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538-39 (Fed. Cir. 1983). Any initial obviousness determination is reconsidered anew in view of the proffered evidence of nonobviousness. *See In re Rinehart*, 531 F.2d 1048, 1052 (CCPA 1976); *In re Eli Lilly & Co.*, 902 F.2d 943, 945 (Fed. Cir. 1990).

A "nexus" must be established between the merits of the claimed invention and the evidence of secondary considerations in order for the evidence to be given substantial weight. *See In re GPAC*, *Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). The scope of the "objective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support." *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971); *see also In re Peterson*, 315 F.3d 1325, 1329-31 (Fed. Cir. 2003).

Further, in order to prove unexpected results, the invention must be compared with the closest prior art. *In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991).

Long-Felt Need

Establishing long-felt need requires objective evidence showing existence of a persistent problem recognized by those of ordinary skill in the art for which a solution was not known. *In re Gershon*, 372 F.2d 535, 539 (CCPA 1967). In addition, the long-felt need must not have been satisfied by another before the invention by applicant. *Newell Co. v. Kenney Mfg*.

Co., 864 F.2d 757, 768 (Fed. Cir. 1988). Hence, the appellant must present affidavits or other factual evidence of "a failure of others to provide a feasible solution to [a] long-standing problem" and evidence "that experts did not foresee" the solution claimed. See In re Piasecki, 745 F.2d 1468, 1475 (Fed. Cir. 1984). Finally, the invention must satisfy the long-felt need. In re Cavanagh, 436 F.2d 491, 496 (CCPA 1971).

Copying

The mere fact of copying is insufficient to make the action significant in an obviousness analysis. *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1027 (Fed. Cir. 1985), *overruled on other grounds by Midwest Indus., Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356, 1359 (Fed. Cir. 1999) (en banc).

ANALYSIS

Unexpected Results

We are not persuaded by Patent Owner's evidence of unexpected results. Specifically, the Bush Declaration does not provide a meaningful comparison between the claims and the closest prior art. As discussed above, the closest prior art is Okajima '307 or Okajima '766. The Bush Declaration does not include side-by-side experimental or other acceptable analytical data to demonstrate an unexpected criticality for the claimed heights or the particular combination of claim elements exists. (*See* Bush Declaration, paras. 3-18.) The statements made in the Bush Declaration are conclusory and merely assert that sidewall heights of above 0.200 inches

were conventional, and the public acclaim directed to "lower sidewall heights" do not consider that such lower sidewall heights were known in the art as evidenced by Okajima '766. (Bush Declaration, paras. 4, 15, and 16; FF 6.) Thus, although the Bush Declaration states that "Rim designers also believed that conventional sidewall heights allowed for good air entrapment due to more surface contact between the outside of the tire and the taller sidewall of the rim" (para. 12), Okajima '766 provides evidence that the claimed sidewall heights are conventional.

In addition, while the Bush Declaration states that the combination of the flat bead seat and the sidewall height "unexpectedly permit a tire to be easily mounted and securely held in place, while effectively trapping air pressure," where such benefit is "surprising in view of the flat bead seat and the reduced amount of surface area for the tire to press against the rim" (para. 13, 15, 17), no comparative data or objective evidence is offered to support the statements. We do not find that the offered evidence outweighs the evidence of obviousness before us. Specifically, as discussed supra, Okajima '766 discloses lower sidewalls and at least Okajima '307 discloses a flat bead seat. (FF 2, 6.)

Moreover, the general concept that a bead hook which mimics the general shape of the tire bead creates a more secure, better sealing rim/tire interface, does not, in our view, represent such an unexpected, surprising result that would outweigh the evidence of obviousness on this record that is not addressed in the Bush Declaration. Further, the general allegations of commercial success made in the Bush Declaration (para. 14), fail to provide any sales data or market share to support a claim of commercial success.

Thus, the Declaration testimony and evidence of acclaim are insufficient to overcome the evidence of obviousness on the record.

Long Felt Need

Patent Owner also does not provide sufficient evidence to support the general contention that the claims fulfill a long-felt need in the industry. (PO Resp. Br. 16.) Specifically, the Declaration does not identify with any particularity what persistent problem was solved by the claimed bicycle rims, that such need had not been satisfied by another before the invention by applicant, or that others had failed to provide a feasible solution to a long-standing problem. Thus, the unsupported assertions of a long-felt need do not outweigh the evidence of obviousness on the record.

Copying

We also are of the opinion that the evidence of copying presented in the Kotiatek Declaration is insufficient to outweigh the evidence of obviousness on the record. We have not been directed to sufficient evidence of record that any such copying may not be attributed to other factors, such as lack of concern for patent property or contempt for the patentee's ability to enforce the patent. *Cable Elec. Prods.*, 770 F.2d at 1028.

Thus, when the evidence of unexpected results, long-felt need, and copying are weighed as a whole against the evidence of obviousness discussed supra, we find such evidence to be insufficient to overcome the evidence of obviousness on the record.

CONCLUSION

On this record, the Examiner did not err in finding that Okajima '307 does not disclose the sidewall heights recited in the claims.

However, the Examiner erred in finding and/or concluding that:

the combination of Okajima '307 and Okajima '766 do not render the limitation "a most distal point of the sidewall extends no further than 0.200 inches above the flat bead seat of the distal surface of the rim" prima facie obvious;

it would not have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated a hump as disclosed in Chen or Veux into a bicycle wheel rim resulting from the combination of Okajima '307 in view of Okajima '766 as recited in claim 4; and

Okajima '307 or Okajima '307 in view of Chen do not disclose disclose or render obvious a sidewall which does not include a bulbous bead lock portions as recited in claim 6.

We also find that the evidence of secondary considerations does not outweigh the evidence in support of obviousness.

DECISION

The Examiner's decision not to reject claims 1-29 is reversed.

For the reasons stated above, we enter Rejections II- VII above as new grounds of rejection.

37 C.F.R. § 41.77(b) states:

(b) Should the Board reverse the examiner's determination not to make a rejection proposed by a requester, the Board shall set forth in the opinion in support of its decision a new ground of

rejection; or should the Board have knowledge of any grounds not raised in the appeal for rejecting any pending claim, it may include in its opinion a statement to that effect with its reasons for so holding, which statement shall constitute a new ground of rejection of the claim. Any decision which includes a new ground of rejection pursuant to this paragraph shall not be considered final for judicial review. When the Board makes a new ground of rejection, the owner, within one month from the date of the decision, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal proceeding as to the rejected claim:

- (1) Reopen prosecution. The owner may file a response requesting reopening of prosecution before the examiner. Such a response must be either an amendment of the claims so rejected or new evidence relating to the claims so rejected, or both.
- (2) Request rehearing. The owner may request that the proceeding be reheard under § 41.79 by the Board upon the same record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

Requests for extensions of time in this *inter partes* reexamination proceeding are governed by 37 C.F.R. § 1.956. *See* 37 C.F.R. § 41.79.

rvb

PATENT OWNER:

WILMERHALE/DC 1875 PENNSYLVANIA AVE., NW WASHINGTON, DC 20006

THIRD-PARTY REQUESTER:

KEVIN P. MORAN MICHAL BEST & FRIEDRICH LLP 100 EAST WISONSIN AVE. MILWAUKEE, WI 53202