

**THIS OPINION WAS NOT WRITTEN FOR PUBLICATION**

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** JONATHON L. WEMPLE

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Appeal No. 99-0201  
Application No. 08/696,283<sup>1</sup>

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ON BRIEF

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Before ABRAMS, McQUADE and CRAWFORD, ***Administrative Patent Judges***.

ABRAMS, ***Administrative Patent Judge***.

**DECISION ON APPEAL**

This is an appeal from the decision of the examiner finally rejecting claims 1-7, 9-14 and 19, which constitute all of the claims remaining of record in the application.

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<sup>1</sup> Application for patent filed August 13, 1996.

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The appellant's invention is directed to a roller for a brake cam. The claims on appeal have been reproduced in an appendix to the Brief.

#### THE REFERENCES

The references relied upon by the examiner to support the final rejection are:

Majewski 1985	4,503,953	Mar. 12,
Guilford 1996	5,531,137	Jul. 2,

#### THE REJECTION

Claims 1-7, 9-14 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Majewski in view of Guilford.

The rejection is explained in the Examiner's Answer.

The opposing viewpoints of the appellant are set forth in the Brief.

#### OPINION

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, *In re Keller*, 642 F.2d 413,

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425, 208 USPQ 871, 881 (CCPA 1981). In establishing a *prima facie* case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See ***Ex parte Clapp***, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, ***Uniroyal, Inc. V. Rudkin-Wiley Corp.***, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1052 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988).

The appellant's invention is directed to improvements in the rollers which operate upon the cams that cause brake shoes to move into contact with brake drums. The problem to which the appellant has directed his inventive efforts is the elimination of the fracturing of the corners of these rollers due to misalignment. As manifested in independent claim 1, the structure that accomplishes this is defined as a

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cam contacting surface including a central cylindrical portion and curved edge surfaces at said axial ends of said cam contacting surface, said curved edge surfaces having a constant radius of curvature, said curved edges [*sic*, edge surfaces] extending over an axial distance that is a substantial portion of the axial length of said cam contacting surface.

Similar language appears in claim 9, the other independent claim.

The examiner finds in Majewski all of the structure recited in claim 1 except for the curved edge surfaces. It is the examiner's position that this feature is taught by Guilford, and that it would have been obvious to one of ordinary skill in the art to curve the edges of the Majewski roller in view of the teachings of Guilford.

Majewski discloses a roller for a brake actuating cam, although the focus of the patent is on retaining the roller rather than the problem attacked by the appellant, which is not even mentioned in Majewski. As shown in Figure 3, each Majewski roller comprises a cylindrical roller surface 21, which is flanked by tapered portions (unnumbered), ends 52, and cylindrical trunnions 22. The edges of the roller surfaces clearly are not curved.

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Guilford is not concerned with brake shoe actuating systems. This reference discloses a cam follower assembly in which the outer ring is mounted on a shaft and a plurality of sets of roller bearings are interposed between the outer ring and the shaft for the purpose of accommodating end thrust (column 1). Figures 5 and 6 show an embodiment in which each roller has a "crowned end portion" (120, 121). The patent states that the preferred crown drop and crown width will be such that "the axial ends of the rollers . . . will comprise a suitable area for thrust-engaging contact with the flanges 14 and 15 of the bearing outer ring 13, and with the annular thrust ring 25," and that the crown width will be "of a dimension suitable for maintaining the roller surfaces . . . a distance away from the lubrication channel" (column 5). Guilford does mention "fatigue under misaligned conditions" in the course of explaining the invention (column 5). However, there is no explicit teaching in the reference that the curved end portions of the rollers are for the purpose of protecting the rollers from damage resulting from misalignment, nor does that appear to be an inherent result, given the structure and operation of the assembly. It therefore is our view that one

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of ordinary skill in the art would have appreciated that the curvature at the ends of the rollers is provided for the purpose of permitting lubricant to protect the components by circulating around the rollers while still providing sufficient area on the end faces of the rollers to transmit axial thrust, and not to protect the edges of the rollers from being crushed.

In the brake system disclosed by Majewski no lubricant is circulated around the rollers, and any end thrust that might be generated would appear to be accommodated through annular end faces at 52 and 54, which already are of reduced diameter. There thus would appear to be no reason to provide the rollers with curved surfaces. The mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See ***In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). We fail to perceive any teaching, suggestion or incentive which would have led one of ordinary skill in the art to provide modify the Majewski rollers in the manner proposed by the examiner. From our perspective, the only suggestion to do so is found in the luxury of the

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hindsight afforded one who first viewed the appellant's disclosure. This, of course, is improper. See *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

In view of the above, it is our conclusion that the teachings of the two applied references fail to establish a *prima facie* case of obviousness with regard to the subject matter of either of the independent claims. This being the case, the rejection of independent claims 1 and 9 and, it follows, of those claims depending therefrom, cannot be sustained.

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**SUMMARY**

The rejection of claims 1-7, 9-14 and 19 is not  
sustained,

The decision of the examiner is reversed.

***REVERSED***

NEAL E. ABRAMS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JOHN P. McQUADE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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MURRIEL E. CRAWFORD	)	
Administrative Patent Judge	)	

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