

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

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KEITH F. BARNHARDT

Appeal No. 2002-1572
Application No. 09/286,088

ON BRIEF

Before ABRAMS, McQUADE and NASE, Administrative Patent Judges.
McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Keith F. Barnhardt appeals from the final rejection of claims 7 through 11, all of the claims pending in the application.

THE INVENTION

The invention relates to "a method . . . for the manufacture of the brake lining material used in various braking applications" (specification, page 1). Representative claim 7 reads as follows:

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7. A method of producing a sheet of brake lining material in a mold having a mold base and a mold frame, said method comprising the steps of:

placing a pre-specified amount of brake lining material within a mold cavity having a volume defined by said mold base and said mold frame;

forming said pre-specified volume of brake lining material within said mold cavity;

adjusting said volume of said mold cavity to equal said volume of said pre-specified amount of brake lining material during said forming step to produce said sheet of brake lining material; and

terminating said forming step when a pre-determined molding pressure is applied to said sheet of brake lining material.

THE PRIOR ART

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

Haas et al. (Haas)	3,534,439	Oct. 20, 1970
Fukuoka, Japanese Patent Document ¹	56-92040	Jul. 25, 1981

THE REJECTION

Claims 7 through 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haas in view of Fukuoka.

¹ The record indicates that an English language translation of this reference, prepared by United States Patent and Trademark Office, has been mailed to the appellant.

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Attention is directed to the appellant's main and reply briefs (Paper Nos. 8 and 10) and to the examiner's answer (Paper No. 9) for the respective positions of the appellant and the examiner with regard to the merits of this rejection.

DISCUSSION

Haas, the examiner's primary reference, discloses an apparatus for molding a mixture 5 of fibrous material and binder into solid panels 4. The apparatus includes an upper pressure plate 1, 12 secured to the ram of a press, a lower mold composed of a base plate 2 and a thick bottom plate 3 mounted on the base plate 2, a frame 6 surrounding the bottom plate 3, cylinder and piston units 7 disposed between the frame 6 and the base plate 2 for sliding the frame 6 vertically along the side and end walls of the bottom plate 3, and spacing members 9 mounted on the base plate 2. In use, the frame 6 is positioned relative to the bottom plate 3 by the cylinder and piston units 7 to form a mold cavity, the fibrous material and binder mixture 5 is filled into the cavity, and the mixture is compressed by the pressure plate 1, 12 acting against a constant back pressure exerted by the cylinder and piston units 7 so as to effect a positive movement of the frame 6 in the downward direction as the mixture is

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compressed. Of particular note is Haas' teaching that the compression stroke ends when the pressure plate 1, 12 engages the stop members 9 mounted on the base plate 2 (see column 3, lines 28 through 30 and 69 through 72).

As conceded by the examiner (see page 4 in the answer), the molding method disclosed by Haas does not meet the limitation in claim 7 requiring the forming step to be terminated "when a pre-determined molding pressure is applied" to the sheet of material being produced. To overcome this deficiency, the examiner turns to Fukuoka.

Fukuoka discloses a compression molding apparatus for making disk brake friction pads. The apparatus consists of a fixed upper mold 10, a lower mold 14 mounted on a ram 16 and a tubular center mold 12 elastically mounted to the lower mold 14 by springs 26. In use, the center mold 12 is positioned relative to the lower mold 14 to form a mold cavity (see Figure 1), the friction pad matrix or mixture M is filled into the cavity, and the ram 16 is actuated to move the center mold 12 into contact with the upper mold 10 and the lower mold relative to the center mold against the pressure of the springs 26 to compress the matrix M (see Figure 2).

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The examiner, finding that Fukuoka's molding step is terminated when a pre-determined molding pressure is applied to the matrix M, concludes that

[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made and one of ordinary skill would have been motivated to use the spring arrangement taught in Fukuoka in place of the stop mechanism for counteracting the pressure applied by the cylinder and piston units in [the] process of Haas et al. to allow the frame member to be free floating to thereby assure more even compression of the brake lining material [answer, page 4].

The examiner's position here is unconvincing for at least two reasons. To begin with, there is nothing in the combined teachings of Haas and Fukuoka which would have suggested the apparently proposed elimination of Haas' stop members 9 and replacement of Haas' cylinder and piston units 7 with springs of the sort 26 disclosed by Fukuoka for the uniform compression rationale advanced by the examiner or for any other ostensible reason. Furthermore, there is nothing in the combined teachings of these references, and particularly in Fukuoka, which would have suggested terminating Haas' forming step when a pre-determined molding pressure is applied as recited in claim 7. The examiner's finding that Fukuoka discloses this feature rests

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on undue speculation and conjecture rather than on sound factual support in the reference.

Thus, the combined teachings of Haas and Fukuoka do not justify a conclusion that the differences between the subject matter recited in claim 7 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. Therefore, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claim 7, and dependent claims 8 through 11, as being unpatentable over Haas in view of Fukuoka.

SUMMARY

The decision of the examiner to reject claims 7 through 11 is reversed.

REVERSED

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

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JEFFREY V. NASE)
Administrative Patent Judge)

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REVERSED

January 22, 2004