

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(2) is not binding precedent of the Board.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. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte SHUNICHI KATASE  
and SIGEO TAMURA

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Appeal No. 1997-1321  
Application 08/366,448<sup>1</sup>

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HEARD: December 6, 1999

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Before HAIRSTON, BARRETT and DIXON, Administrative Patent  
Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 2,

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<sup>1</sup> Application for patent filed December 30, 1994.  
According to appellants, the application is a continuation of  
Application 07/952,920, filed September 28, 1992, now  
abandoned.

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3, 5 through 7, 21, 24 through 29, 32 and 34.

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The disclosed invention relates to a magnetic head with a slider. The slider has at least one trace formed by a process that will induce a strain in a groove between the air bearing surfaces of the slider. The strain controls the degree of flatness of the air bearing surfaces.

Claim 21 is the only independent claim on appeal, and it reads as follows:

21. A magnetic head with a slider, wherein said slider has at least two air bearing surfaces in a medium opposing surface, said slider also having a surface remote from the medium opposing surface, said slider having at least one trace of processing, said trace of processing arranged on a linear line imaginarily drawn on a groove between the air bearing surfaces, said trace of processing formed by a process selected from machining, irradiating laser, electron rays, ion beams, or ultrasonic waves, or by injecting fine abrasive particles to the slider, so that said trace induces a strain in the groove between the air bearing surfaces, said strain controlling the degree of flatness of the air bearing surfaces, wherein said air bearing surfaces are either all convex or all concave.

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The Japanese patent applications<sup>2</sup> relied on by the examiner are:

Tagawa (Japanese Kokai)	58-88872	May 27, 1983
Tagawa (Japanese Kokai)	60-52978	Mar. 26, 1985
Ide et al. (Ide) (Japanese Kokai)	63-7575	Jan. 13, 1988
Kojima et al. (Kojima) (Japanese Patent Application)	2-210678	Aug. 22, 1990

Claims 2, 3, 5, 21, 24, 26 and 27 stand rejected under 35 U.S.C. § 102(b) as anticipated by Tagawa '872 or, in the alternative, under 35 U.S.C. § 103 as being unpatentable over Tagawa '872.

Claims 6, 28, 29 and 32 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tagawa '872.

Claims 2, 3, 5, 21, 24, 26, 27 and 29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tagawa '978 or, in the alternative, under 35 U.S.C. § 103 as being unpatentable over Tagawa '978.

Claims 7, 28 and 32 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tagawa '978.

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<sup>2</sup> Copies of the translations of the references are attached.

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Claim 34 stands rejected under 35 U.S.C. § 103 as being unpatentable over Tagawa '872 in view of Ide.

Claims 2, 3, 5 through 7, 21, 24 through 27 and 29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kojima or, in the alternative, under 35 U.S.C. § 103 as being unpatentable over Kojima.

Reference is made to the brief and the answer for the respective positions of the appellants and the examiner.

#### OPINION

All of the rejections are reversed.

The examiner met his initial burden of presenting a prima facie case of unpatentability by demonstrating that the product-by-process "claims are directed to the product per se" (Answer, pages 3, 4 and 8), that Tagawa '872 has grooves/traces 3a perpendicular to the air bearing surfaces 1a, that Tagawa '978 has grooves/traces 3a parallel to the air bearing surfaces 1a, and that Kojima has grooves/traces parallel to the air bearing surfaces 2.

Appellants do not dispute the examiner's position concerning product-by-process claims (Brief, pages 11 and 16). Nor do appellants deny that grooves have been placed in

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sliders before appellants' invention (Brief, page 7).

Although the grooves in each of the references is made by a chemical etching process, the examiner nevertheless concludes (Answer, pages 15 and 16) that a strain would be induced in each of the sliders.

If the examiner has met his initial burden of presenting a prima facie case of unpatentability, then the burden of coming forward with evidence or argument shifts to applicants. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Thereafter, the ultimate determination of patentability is made on the entire record. In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). In rebuttal to the examiner's prima facie case of unpatentability, appellants provided a copy of an excerpt from Metals Handbook, Ninth Edition, Vol. 16, page 583, which clearly states that chemical milling of the surface of a material does not induce stress in the material because "neither mechanical deformation nor exposure to high temperatures is involved."

In the absence of any evidence in the record that states otherwise, we must agree with appellants that the evidence in

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the Metals Handbook teaches that the teachings of the applied references do not encompass an induced strain "in the groove between the air bearing surfaces" of the sliders. For this reason, none of the prior art rejections of claims 2, 3, 5 through 7, 21, 24 through 29, 32 and 34 can be sustained.

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DECISION

In view of the reversal of all of the rejections of record, the decision of the examiner is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED

	)	
KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
LEE E. BARRETT	)	)
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JOSEPH L. DIXON	)	
Administrative Patent Judge	)	

KWH:hh

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