Paper No. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SAMUEL W. YUAN

Appeal No. 98-0600
Application 08/541,441[1]

ON BRIEF

Before McKELVEY, Senior Administrative Patent Judge, and SCHAFER and LEE, Administrative Patent Judges.

LEE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1, 2 and 4-7. No claim has been allowed. Claim 3 has been canceled. The real party in interest is Read-Rite Corporation.

References relied on by the Examiner

Kira et al. (Kira)	4,639,806	January 27, 1987

The Rejections on Appeal

[1] Application for patent filed October 10, 1995.

Claims 1, 2, and 4-7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kira.

The Invention

The claimed invention is directed to a giant magnetoresistive transducer having an air bearing surface, including a giant magnetoresistive sensor. The sensor has a sensing surface and side surfaces and is recessed at a distance S from the air bearing surface for defining a gap between the sensor and the bearing surface. Magnetic shield members are spaced from the side surfaces of the sensor and are separated from each other by a distance G. The distance S is less than half the distance G. A dielectric layer is disposed within the gap.

Claim 1 is the only independent claim and reads as follows:

> 1. A giant magnetoresistive transducer for reading data signals recorded on a surface of a magnetic medium, said transducer having an air bearing surface comprising:
>
> a giant magnetoresistive sensor having a sensing surface and side surfaces, said sensor being recessed at a distance S from said air bearing surface to define a gap between said sensor and said air bearing surface;

> magnetic shield members spaced from each of said side surfaces and at a distance G between said shield members wherein said distance S is less than half of said distance G for preventing signal loss caused by said shields shunting away incoming transition flux from said magnetic medium; and
>
> a dielectric layer disposed within said gap, said dielectric layer extending from said sensing surface to separate said sensing surface from said surface of said magnetic medium on which data signals are recorded which are to be read out by said transducer.

Opinion

The rejection of claims 1, 2, and 4-7 cannot be sustained. A reversal of the rejection on appeal should not be construed as an affirmative indication that the appellants' claims are patentable over prior art. We address only the positions and rationale as set forth by the examiner and on which the examiner's rejection of the claims on appeal is based.

The examiner has the initial burden to present a factual basis supporting the conclusion of prima facie obviousness. As is stated by the Court of Customs and Patent Appeals in In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967):

> A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the

> invention from the prior art. In making this evaluation, all facts must be considered. The Patent Office [examiner] has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis. (Emphasis in original).

In this case, the examiner has made several findings which lack an adequate factual basis in the record. First, the

examiner concludes that Figure 1 of Kira shows a recess between the magnetoresistive sensor 3 and the air bearing surface located along the side where arrow A is disposed. But because of the angular view of the illustration, the appellant's view is just as plausible that the forward end of sensor element 3 is actually aligned or flush with the air bearing surface. The examiner does not point to any description in the specification which refers to or discusses a recess as is claimed by the appellant, or otherwise identifies a recess as being illustrated in Figure 1.

Secondly, the examiner finds that in Kira the gap defined by the "alleged" recess is filled with a dielectric material, even though the examiner points to no description or

discussion in Kira of any such dielectric material in the recess. The examiner reasons (answer at 6): "If there was no dielectric in the space between the MR sensor and the air bearing surface then the upper shield would contact the lower shield in this space since there would be no material to deposit the upper shield on in this region. Again, this would not allow the device to work." However, the examiner pointed to no evidence which supports his apparent conclusion that the only way to produce and/or arrange two shields which do not touch each other is by having a dielectric material disposed within the entire space between them. We decline to take the examiner's mere assertions as fact.

Finally, the examiner finds that in Kira the distance between the sensor and the air bearing surface (identified as S in the appellant's claims) is indeed less than half the distance between the two shield members (identified as G in the appellant's claims). That finding is speculative, since there is no basis to find that Kira's Figure 1 is drawn to scale and since the angular view of Kira's Figure 1 makes it questionable whether there is even any distance between the front edge of the sensor and the air bearing surface.

Alternatively, the examiner finds that it would have been obvious to one with ordinary skill in the art to make the distance S at less than half of the distance G, because if not, the magnetic shield members on the sides of the sensor would shunt away incoming transition flux from the magnetic medium. But even assuming that one with ordinary skill in the art would have recognized some shunting effects due to the shields, the evidence does not support the examiner's conclusion that one with ordinary skill in the art would have arrived at the specific upper threshold claimed by the appellant for distance S, i.e., "half of the distance G."

Just as an attorney's arguments do not constitute facts, neither do the examiner's unsubstantiated factual assertions. For the foregoing reasons, the examiner's conclusion of obviousness is without adequate factual basis. Rather, it is highly speculative and based on improper hindsight in light of the appellant's own disclosed invention.

Conclusion

The rejection of claims 1, 2 and 4-7 under 35 U.S.C. § 103 as being unpatentable over Kira is reversed.

REVERSED

FRED E. McKELVEY, Senior Administrative Patent Judge	)
RICHARD E. SCHAFER Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JAMESON LEE Administrative Patent Judge	)

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