

**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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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**Ex parte** TERRY B. MITCHELL, WILLIAM P. WOOD and  
PAUL F. MICHALEK

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Appeal No. 95-2917<sup>1</sup>  
Application 08/082,895

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ON BRIEF

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Before KRASS, JERRY SMITH and FLEMING, **Administrative Patent Judges**.

FLEMING, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is a decision on appeal from the final rejection of claims 1 and 3 through 29, all of the claims pending in the application. Claim 2 has been canceled.

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<sup>1</sup>Application for patent filed June 25, 1993. According to appellants, this application is a continuation of application 07/703,539, filed May 21, 1991, now abandoned.

The invention relates to a combined read/write magnetic head used in a device to read information from and write information onto a magnetic medium.

The independent claim 1 is reproduced as follows:

1. A read/write magnetic head, comprising:

a substrate of substantially magnetically impermeable material;

a magnetic read head overlying said substrate, said magnetic read head including a combination of a first broken flux guide of magnetically permeable material, a second unbroken flux guide of magnetically permeable material overlying the first flux guide, and a first region of substantially magnetically impermeable material positioned between said first and second flux guides, said first region of material defining a read gap between said first and second flux guides at one end of said read/write magnetic head;

a magnetic write head overlying said magnetic read head, said magnetic write head including a combination of a first pole, an overlying second pole of magnetically permeable material and a second region of substantially magnetically impermeable material positioned between said first and a second poles, said second region of material defining a write gap between said first and second poles at said one end of said read/write magnetic head;

said read/write magnetic head further comprising a substantially single-domain magnetoresistive element (MRE) positioned between said first flux guide and said substrate, said first flux guide including two flux guide sections, each of which

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partially overlaps said MRE; the flux density at said MRE during writing being equal to or less than about 10,000 gauss, whereby destabilization of said MRE when writing with said write head is prevented.

The Examiner relies on the following references:

Kira et al. (Kira) 1989	4,803,581	Feb. 07,
Mowry	4,891,725	Jan. 02, 1990
Mallary	4,907,113	Mar. 06, 1990

Claims 1 and 3 through 29 stand rejected under 35 U.S.C.

§ 103 as being unpatentable over Mowry in view of Mallary and Kira. On page 8 of the Examiner's answer, the Examiner sets forth a new ground of rejection under 35 U.S.C. § 112, first paragraph. In this new ground, the specification is objected to under 35 U.S.C. § 112, first paragraph, for failing to provide an enabling disclosure and the claims are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the briefs<sup>2</sup> and answers<sup>3</sup> for the

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<sup>2</sup>Appellants filed an appeal brief on August 1, 1994. We will refer to this appeal brief as simply the brief. Appellants filed a reply appeal brief on December 22, 1994. In a supplemental answer, mailed December 16, 1997, the Examiner responded to the above reply brief, thereby entering the reply brief into the record. Appellants filed a reply appeal brief on March 2, 1998. The

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respective details thereof.

**OPINION**

We will not sustain the rejection of claims 1 and 3 through 29 under 35 U.S.C. §§ 103 or 112.

In order to comply with the enablement provision of 35 U.S.C. § 112, first paragraph, the disclosure must adequately describe the claimed invention so that the artisan could practice it without undue experimentation. ***In re Scarbrough***, 500 F.2d 560, 566, 182 USPQ 298, 305 (CCPA 1974); ***In re Brandstadter***, 484 F.2d 1395, 1404, 179 USPQ 286, 293 (CCPA 1973); and ***In re Gay***, 309 F.2d 769, 774, 135 USPQ 311, 316 (CCPA 1962). If the Examiner had a reasonable basis for questioning the sufficiency of the disclosure, the burden shifted to the Appellant to come forward with evidence to

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Examiner stated in the Examiner's letter, mailed March 20, 1998 that the March 2, 1998 reply brief has been entered and considered but no further response by the Examiner is deemed necessary.

<sup>3</sup>The Examiner responded to the brief with an Examiner's answer, mailed October 26, 1994. We will refer to the Examiner's answer as simply the answer. We note that the answer contains a new ground of rejection rejecting claims 1 and 3 through 29 under 35 U.S.C. § 112, first paragraph. The Examiner responded to the reply brief with a supplemental Examiner's answer, mailed December 16, 1997.

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rebut this challenge. *In re Doyle*, 482 F.2d 1385, 1392, 179 USPQ 227, 232 (CCPA 1973), **cert. denied**, 416 U.S. 935 (1974); *In re Brown*, 477 F.2d 946, 950, 177 USPQ 691, 694 (CCPA 1973); and *In re Ghiron*, 442 F.2d 985, 992, 169 USPQ 723, 728 (CCPA 1971). However, the burden was initially upon the Examiner to establish a reasonable basis for questioning the adequacy of the disclosure. *In re Strahilevitz*, 668 F.2d 1229, 1232, 212 USPQ 561, 563 (CCPA 1982); *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976); and *In re Armbruster*, 512 F.2d 676, 677, 185 USPQ 152, 153 (CCPA 1975).

On page 9 of the answer, the Examiner appears to be arguing that because the claim language recites "the flux density at said MRE during writing being equal to or less than about 10,000 gauss" the claim's scope covers a range between zero gauss to 10,000 gauss. The Examiner then argues that the specification is not enabling for extremely low values such as 10 gauss.

In the reply, filed March 2, 1998, Appellants argue that the specification discloses a preferred embodiment that has flux density as per the claimed limitation, i.e., less than

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about 10,000 gauss. Appellants point out that the flux density in the preferred embodiment is of about 6,000 gauss.

Our reviewing court states that it is not a function of the claims to specifically exclude possible inoperative combinations. **Atlas Powder Co. v. E.I. Dupont De Nemours & Co.** 750 F.2d 1569, 1576, 224 USPQ 409, 414 (Fed. Cir. 1984) citing **In re Dinh-Nguyen** 492 F.2d 856, 858-59, 181 USPQ 46, 48 (CCPA 1974). We note that the Appellants' specification teaches that the critical limit of the flux density during writing is to be equal or less than 10,000 gauss to prevent destabilization of the magnetic read head. The specification further provides enabling embodiments

that would have allowed those skilled in the art to make and use the invention. Furthermore, we note that claim 1 recites "the flux density at said MRE during writing being equal to or less than about 10,000 gauss, whereby destabilization of the said MRE when writing with said write head is prevented." Therefore, we find that Appellants have met the requirements

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of 35 U.S.C.

§ 112, first paragraph.

In regard to the 35 U.S.C. § 103 rejection, the Examiner has failed to set forth a **prima facie** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. **In re Sernaker**, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." **Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.**, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), **cert. denied**, 117 S.Ct. 80 (1996) **citing**

**W. L. Gore & Assocs., Inc. v. Garlock, Inc.**, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), **cert. denied**, 469 U.S. 851 (1984).

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Appellants argue on page 16 of the brief that none of the references teach or suggest controlling a specific amount of flux density at the magnetoresistive element during writing or controlling the amount of flux from the write head to the magnetoresistive element during reading. We note that independent claim 1 recites "the flux density at said MRE during writing being equal to or less than about 10,000 gauss, whereby destabilization of the said MRE when writing with said write head is prevented" and the other independent claim 16 recites "the flux communicated to the MRE via said write head when reading with said read head, resulting in about 10 percent or less of the signal output of said MRE."

The Examiner responded on page 6 of the answer that the Examiner's modifications would have inherently resulted in flux densities at the MRE during writing of less than 6000 gauss and flux communicated to the MRE via the write head during the reading of about 10 per cent of the signal output of the MRE.

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The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." **In re Fritch**, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), **citing In re Gordon**, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). We note that none of the references address the problem that is being solved by the Appellants, which is to prevent destabilization of the MR element.

We agree that the references teach magnetoresistive elements, but the Examiner has failed to show that the prior art suggested the desirability of the Examiner's proposed modifications. We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by a teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Our reviewing court requires this evidence in order to establish a **prima facie** case. **In re Knapp-Monarch Co.**, 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961); **In re Cofer**, 354 F.2d 664, 668, 148 USPQ 268,

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271-72 (CCPA 1966). Therefore, we find that the Examiner has failed to establish why one having

ordinary skill in the art would have been led to the claimed invention by teachings or suggestions found in the prior art.

We have not sustained the rejection of claims 1 and 3 through 29 under 35 U.S.C. §§ 103 or 112. Accordingly, the Examiner's decision is reversed.

**REVERSED**

ERROL A. KRASS	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
JERRY SMITH	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
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MICHAEL R. FLEMING	)	
Administrative Patent Judge	)	

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