

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(2) is not binding precedent of the Board.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. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHINICHI MAKI, TATSUYA MASUDA,
KAZUNOBU TOMIYAMA AND YOSHIHISA MATSUMOTO

Appeal No. 95-3124
Application 08/125,311¹

HEARD: MAY 5, 1998

Before HAIRSTON, TORCZON and CARMICHAEL, Administrative Patent
Judges.

HAIRSTON, Administrative Patent Judge.

¹ Application for patent filed September 21, 1993.

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DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 3, 4, 6, 7, 9, 11 through 15 and 17. In an Amendment After Final (paper number 9-1/2), claim 6 was canceled. Accordingly, claims 1, 3, 4, 7, 9, 11 through 15 and 17 remain before us on appeal.

The disclosed invention relates to a method and apparatus for producing a reduced write current to a data head that is collaterally positioned with a servo head between two disks.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A method for writing data, for a magnetic disk apparatus that includes a plurality of magnetic disks that are stacked at predetermined intervals; a servo head for reading servo signals recorded on a servo surface of one of said magnetic disks; a plurality of data heads, one of which is provided for each data surface of said magnetic disks, with a first data head being collaterally positioned with said servo head with no intervening magnetic disk therebetween, and said second data heads being positioned at other than said collateral position; and an actuator for supporting said servo head and said data heads and for positioning said servo head and said data heads by moving them radially relative to said magnetic disks, comprising the steps of:

producing a write current whose value is varied by selecting either said first data head or one of said second data heads in consonance with a head select signal and wherein the write current produced when said first data head is selected is less than a value of a write current that is

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produced when one of said second data heads is selected; and

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driving, at said write current value, said data head that is selected by said head select signal in consonance with write data.

The references relied on by the examiner are:

Sidman 1992	5,099,367	Mar. 24,
Weispfenning et al. (Weispfenning) 4, 1992	5,136,439	Aug.
Weispfenning et al. (Weispfenning) 11, 1993	5,210,669	May
Nguyen et al. (Nguyen) 1993	5,260,703	Nov. 9,

(filed Aug. 27, 1992)

Claims 1, 3, 4, 7, 9, 11 through 15 and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sidman in view of Weispfenning '439² and Nguyen.

Reference is made to the brief, the answer and the final rejection (paper number 8) for the respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us,

² Weispfenning (U.S. Patent No. 5,210,669) is listed in the prior art of record, but it is not included in the statement of the rejection. Since this reference was not included in the statement of the rejection, we will not consider appellants' discussion of this reference in the response to arguments section of the answer. See In re Hoch, 428 F.2d 1341, 1342, 166 USPQ 406, 407 (CCPA 1970).

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and we will reverse the obviousness rejection of claims 1, 3,
4, 7, 9, 11 through 15 and 17.

Figure 1B of Sidman discloses a servo head 27 and a data head 26 with a disk 16 located therebetween. Although Sidman discloses "a head selection and amplifying unit 32 for supplying a head selection signal to the drive control unit 10," and "a circuit 34 for providing an automatic gain control signal for the unit 32," he "fails to specifically disclose the claimed first data head which is collaterally paired with the servo heads, the step of supplying a variable write current to one of the data write head and thus drives the head at the aforementioned current value" (paper number 8, page 3).

The examiner relies on Nguyen to show that "the use of a VGA amplifier is notoriously well known" (paper number 8, page 4).

Weispfenning '439 discloses (Figure 1) a data transducer 18 and a servo transducer 14 supported on the same actuator arm between two disks. According to the examiner, "the primary source of undesired electromagnetic radiation³ to the

³ Appellants' acknowledged prior art (Figure 1B) discloses a data head and a servo head collaterally paired and supported by the same actuator arm between two disks. With such closely spaced heads, electromagnetic noise leakage from the data head to the servo head will occur during data writing by the data head. Appellants have likewise acknowledged this problem

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servo transducer of servo head 14 is the data head 18 (the first data head) which shares the same actuator arm assembly with the servo head 14" (paper number 8, page 6). The examiner concludes (paper number 8, page 7) that:

Since the amplitude of the noise induced for a given write current is inversely proportional to the distance between the servo and the data head, the write current of a typical first data head is preferred to be smaller than that of the second data head. Hence, in order to obtain an uniform and optimum error rate, it would be obvious that the write current varies in the system as taught by Sidman/Weispfenning et al./Nguyen et al."

Appellants argue (Brief, page 28) that "[t]he stark fact is that not a single one of the references applied by the Examiner even mentions electromagnetic interference between collaterally spaced data [and] servo heads or relative values of write currents between such heads." We agree. The examiner has reached a conclusion that "the write current of a typical first data head is preferred to be smaller than that of the second data head" without the benefit of any evidence in the record, except for appellants' disclosed and claimed invention. Inasmuch as a prima facie case of obviousness can

(specification, page 4).

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not be made using appellants' disclosed and claimed invention
as a guide, the obviousness rejection is reversed.

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DECISION

The decision of the examiner rejecting claims 1, 3, 4, 7, 9, 11 through 15 and 17 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
RICHARD TORCZON)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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)	
JAMES T. CARMICHAEL)	
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