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Hollingsworth Davis 8500 Normandale Lake Blvd Suite 320 Minneapolis, MN 55437			WATKO, JULIE ANNE	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KOOK-HYUN SUNWOO and KYOUNG-WON NA

Appeal 2011-011281
Application 11/713,663
Technology Center 2600

Before: JOSEPH L. DIXON, ST. JOHN COURTENAY III, and
CARLA M. KRIVAK, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a rejection of claims 1, 4, 10-11, and 18-20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a perpendicular magnetic recording head and method of manufacturing the same. Claim 1, reproduced below, is representative of the claimed subject matter:

1. A perpendicular magnetic recording head comprising:

a main pole,

a return yoke,

a sub-yoke formed on a lateral side of the main pole to allow a magnetic field generated from the main pole to gather on a selected region of the recording medium during an information-recording process,

a magnetic shield layer spaced a predetermined distance from the sub-yoke to reduce an influence of a neighboring magnetic field during an information-reproduction process, and

a coil which generates a magnetic field such that the main pole records information on a recording medium, wherein the coil is located between the magnetic shield layer and the return yoke, and formed in a solenoid shape surrounding the main pole and the sub-yoke,

wherein the coil comprises:

a top coil which is formed in an upper portion of the main pole;

a bottom coil which is formed in a lower portion of the main pole; and

a connection portion which connects the top coil with the bottom coil to surround the main pole, and

a gap layer formed on the main pole to physically separate an end of the main pole that faces an ABS (air bearing surface) from an end of the return yoke,

a first insulating layer formed on the magnetic shield layer;

a second insulating layer formed on the first insulating layer; and

a third insulating layer formed on the gap layer,

wherein the sub-yoke is formed on the second insulating layer, the main pole is formed on the sub-yoke, and an upper portion of the second insulating layer, the bottom coil of the coil is located between the first and second insulating layers, the top coil is formed on the third insulating layer, and the return yoke is formed on the gap layer, the third insulating layer, and the top coil.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Rottmayer	US 5,446,613	Aug. 29, 1995
Stoev	US 7,248,433 B1	Jul. 24, 2007 Filed Feb. 2, 2004
Hirata	US 7,542,233	Jun. 2, 2009 Filed Jan. 24, 2006

REJECTIONS

Claim 19 stands rejected under 35 U.S.C §112 first paragraph as failing to comply with the written description requirement.

Claims 1, 4, 10, 11, and 18-20 stand rejected under 35 U.S.C §103(a) as being unpatentable over Hirata.

ANALYSIS

112 first paragraph, Written Description

In order to satisfy the written description requirement, “the [original] specification must describe an invention understandable to that skilled artisan and show that invention actually invented the invention claimed.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010)(en banc). “[T]he test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Id.* (citations omitted). One shows possession “by such descriptive means as words, structures, figures, diagrams, formulas, etc. that fully set forth the claimed invention.” *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

The Examiner contends Appellants' arguments (App. Br. 16-17) are not persuasive with respect to dependent claim 19 because the shape indicated in Appellants' annotated Figure 4B in the Appeal Brief is not "zigzag" in so far as it is not shaped like a Z. (Ans. 12). We disagree with the Examiner. We find that the claimed "zigzag structure" is adequately

supported by a structure having sharp angles or turns¹, which we find is shown in Appellants' figure 4B for the top coil. Therefore, we cannot sustain the Examiner's rejection of dependent claim 19 based upon a lack of written description.

Obviousness

With respect to independent claim 1, Appellants contend the Hirata reference discloses a single insulating film and the claims recite first, second, and third insulating films, which are not inherent in the Hirata reference. (App. Br. 9-12). We note that the Examiner's rejection is based upon obviousness rather than inherency, and the Examiner has further explained the rejection with a more detailed line of reasoning in the statement of the rejection and the responsive arguments. (Ans. 4-6 and 8-11). We find the Examiner's line of reasoning to be reasonable and well supported. Appellants elected not to file a Reply Brief to respond to the Examiner's further clarifications with regard to the obviousness rejection.

We adopt the Examiner's line of reasoning as our own, particularly as Appellants have not addressed the Examiner's more detailed position. Therefore, we sustain the rejection of representative independent claim 1. Since Appellants' have not set forth separate arguments for patentability of the dependent claims, we group claims 4, 10, 11, and 18-20 as falling with representative independent claim 1.

¹ Zig zag defined as "one of a series of short sharp turns, angles or alterations in course," Webster's 7th New Collegiate Dictionary, page 1039, copyright 1963.

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CONCLUSIONS OF LAW

The Examiner erred in rejecting claim 19 based upon 35 U.S.C. §112, first paragraph, written description requirement.

The Examiner did not err in rejecting claims 1, 4, 10, 11, and 18-20 based upon obviousness.

DECISION

For the above reasons, the Examiner erred in rejecting claim 19 based upon written description requirement, and the Examiner's rejection of claims 1, 4, 10-11, and 18-20 based upon obviousness is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

Vsh