

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANCISCUS W.A. DIRNE, VICTOR ZIEREN, BROESE VAN GROENOU, LEO-FRANCISCUS VAN OORSCHOT, PETER LASINSKI, MATHIJS DE JONGH and FREDDY ROOZEBOOM

Appeal No. 1999-2283
Application No. 08/690,525

ON BRIEF

Before JERRY SMITH, RUGGIERO, and DELMENDO, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 2-5 and 8-11. Claims 1, 6, and 7 have been canceled. An amendment filed May 7, 1997 after final rejection was approved for entry by the Examiner.

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The claimed invention relates to a magnetic head structure in which the head face is provided with a first corrosion insensitive material layer and a second layer of wear-resistant material which is more insensitive to corrosion than the first material layer. According to page 2 of Appellants' specification, the second layer, which includes a contact face for cooperation with a record carrier, protects the magnetic head from abrasive and corrosive wear.

Claim 11 is illustrative of the invention and reads as follows:¹

11. A magnetic head having a head face and comprising a head structure provided with a transducing gap, said transducing gap terminating in said head face, different materials being present in different areas of the head face, characterized in that the head face is provided at the transducing gap and at both sides thereof with a first layer of a material which is more sensitive to corrosion than said materials of the head face, and the first layer is provided, at the transducing gap and at both sides thereof, with a second layer of a wear-resistant material that is more insensitive to corrosion than the material of the first layer.

The Examiner relies on the following prior art:

¹ Contrary to the Examiner's indication at page 3 of the Answer, the copy of claim 11 presented in the Appendix to Appellants' Brief filed October 14, 1997 (paper No. 29) is correct since it reflects the changes added by the amendment filed May 7, 1997 (Paper No. 25) after final rejection, which was entered by the Examiner.

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| Varlamov et al. (Varlamov) | SU622151 | Aug. 30, 1978 |
| (Published Russian Patent Application) | | |
| Ooji et al. (Ooji) | 56-19517 | Feb. 24, 1981 |
| (Published Japanese Patent Application) ² | | |

J. R. Morrison et al. (Morrison), "Magnetic Transducer Head", IBM Technical Disclosure Bulletin, Vol. 7, No. 4, 333, (September 1964).

G. W. Brock et al. (Brock), "Wear Resistant Coating", IBM Technical Disclosure Bulletin, Vol. 11, No. 10, 1199, (March 1969).

Claims 2-5 and 8-11 stand finally rejected under 35 U.S.C. § 103. As evidence of obviousness, the Examiner offers Ooji (JP '517) in view of Varlamov (SU '151) with respect to claims 2-4 and 8-11, and adds Morrison (IBM 333) and Brock (IBM 1199) to the basic combination with respect to claim 5.³

² Copies of translations provided by the U.S. Patent and Trademark Office, relied upon in this decision, are enclosed.

³ Since both the Examiner and Appellants refer to the applied prior art by reference number rather than inventor's name, we will do so also to maintain consistency.

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Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs⁴ and Answer for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' arguments set forth in the Briefs along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 2-5 and 8-11. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is

⁴ The Appeal Brief was filed October 14, 1997 (Paper No. 29). In response to the Examiner's Answer dated December 24, 1997 (Paper No. 30), a Reply Brief was filed February 27, 1998 (Paper No. 31) which was acknowledged and entered by the Examiner without further comment as indicated in the communication dated December 10, 1998 (Paper No. 35).

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incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825

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(1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.,
776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to independent claim 11, the Examiner, as the basis for the obviousness rejection, proposes to modify the magnetic head structure disclosure of JP '517. As recognized by the Examiner, JP '517, while disclosing first and second layers of protective material, does not extend the protective layers over the head transducing gap. To address this deficiency, the Examiner turns to SU '151 which describes a single layer protective covering which includes coverage over

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the head gap. According to the Examiner, the skilled artisan would have been motivated and found it obvious to extend the coverage of the protective layers of JP '517 into the head gap as taught by SU '151 "... in order to improve wear-resistant characteristics of the magnetic head." (Answer, page 5).

In response, Appellants assert (Brief, pages 7-9) a lack of suggestion or motivation in the references for combining or modifying teachings to establish a prima facie case of obviousness. After careful review of the applied prior art references, we are in agreement with Appellants' stated position in the Brief. The 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, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

The JP '517 reference approaches the problem of providing wear protection for a magnetic head by utilizing a first relatively thin (100-1000 Angstroms) metal oxide adhesive layer over which is provided a relatively thick (10-20 microns) abrasion-resistant layer comprising carbides or

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nitrides. As indicated at page 3 of the English translation of JP '517, the increasing thickness of the abrasion-resistant layer toward the sides of the head structure, coupled with the fact that the gap is not clogged with the abrasion resistant material, provides wear protection and improved performance without damaging the recording medium. The SU '151 reference, on the other hand, rather than providing a relatively thick two layer of wear-resistant material, attacks the wear protection problem by providing a single layer of coverage material (predominately aluminum oxide) and extending it into the transducing gap. In our view, these structural teachings are so opposite in approach that any motivation to combine them must have resulted from an improper attempt to reconstruct Appellant's invention in hindsight. In our opinion, any suggestion to extend the two layer wear resistant protective layers of JP '517 into the transducing gap as recited in the appealed claims could only come from Appellants' disclosure and not from the teachings of the applied references.

We have also reviewed the IBM 333 and IBM 1199 references applied by the Examiner to address the specific recitation in

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dependent claim 5 of chromium and chromium oxide as the first and second protective layers. We find nothing in these references, however, which would overcome the innate deficiencies of JP '517 and SU '151 discussed supra.

Accordingly, since we are of the opinion that the prior art applied by the Examiner does not support the obviousness rejection, we do not sustain the rejection of independent claim 11, nor of claims 2-5 and 8-10 dependent thereon. Therefore, the Examiner's decision rejecting claims 2-5 and 8-11 under 35 U.S.C. § 103 is reversed.

REVERSED

JERRY SMITH)
Administrative Patent Judge)
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) BOARD OF PATENT
JOSEPH F. RUGGIERO) APPEALS

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| Administrative Patent Judge |) | |

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APJ SMITH, JERRY

APJ DELMENDO

DECISION: REVERSED
Send Reference(s): Yes No
or Translation (s)
Panel Change: Yes No
Index Sheet-2901 Rejection(s):

Prepared: August 14, 2002

Draft Final

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PALM / ACTS 2 / BOOK
DISK (FOIA) / REPORT