

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DARRELL D. PALMER,
A. DAVID ERPELDING,
OSCAR J. RUIZ,
and
SURYA PATTANAİK

Appeal No. 1998-2585
Application No. 08/643,935

ON BRIEF

Before KRASS, HECKER, and LALL, Administrative Patent Judges.
LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the final rejection¹ of all the pending claims 1, 2, 4 to 6, 8 to 12, 15, 16, 18, 19, 21 to 23, 25 to 28, 34, 35, 37, 38 and 40. Claims 29 to 33 are non-elected, and the remaining

¹There was an amendment after the final rejection (paper no. 20) which was entered by the Examiner (paper no. 21).

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claims 3, 7, 13, 14, 17, 20, 24, 36 and 39 have been canceled.

The invention is related to a suspension for supporting a data transducer in a disk drive. The materials used in a laminated part of the suspension allow the particular designs claimed in the application to be implemented. A load beam applies a load to the slider and is connected to the slider portion by a first flexure arm and a second flexure arm. A cavity is positioned between the first flexure arm and the second flexure arm. An electric cable extends along the load beam and positioned for connection to the surface of the slider. The electric cable is comprised of a first layer and a second layer. The second layer is positioned over the first layer and comprises at least a first elongated strip and a second elongated strip, both comprised of a high strength electrically conductive material selected from the group consisting of Cu-Ni-Si-Mg alloy, Be-Cu-Ni alloy and Cu-Ti alloy. The invention is further illustrated by the following claim below.

1. A suspension for supporting a data transducer comprising:

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a slider portion for attachment to a slider having an
air bearing surface and a back surface;

a load beam for applying a load to the slider;

the a first flexure arm connected to the load beam and
slider portion;

the a second flexure arm connected to the load beam and
slider portion;

a cavity positioned between the first flexure arm and
the second flexure arm; and

an electrical cable extending along the load beam and
positioned for connection to the back surface of the
slider, the electrical cable being comprised of a first
layer and a second layer, the second layer being positioned
on the first layer and comprising at least a first elongated
strip of a high strength electrically conductive material
selected from the group consisting of Cu-Ni-Si-Mg alloy,
Be-Cu-Ni alloy and Cu-Ti alloy and a second elongated
strip of the high strength electrically conductive material,
with the first elongated strip being separated from the
second elongated strip by a space that prevents the first
elongated strip from electrically shorting the second
elongated strip and the first layer being positioned
between the back surface of the slider and the second
layer.

The Examiner relies on the following references:

Picault et al. (Picault)	5,026,434	Jun. 25,
1991		
Johnson et al. (Johnson)	5,331,489	Jul. 19,
1994		
	(Filing date: Nov. 12,	
1992)		

Japanese Kokai publications²

²We have considered in making our decision English translations of these publications provided by and for the Patent and Trademark Office. A copy of these translations is mailed with this decision.

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Fuchigami
1992

H4-146516

May 20,

Ooyama et al. (Ooyama)

5-182141

Jul. 23, 1993

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Claims 1, 2, 4 to 6, 8 to 12, 15, 16, 18, 19, 21 to 23, 25 to 28, 34, 35, 37, 38 and 40 stand rejected under 35 U.S.C. § 103 over various combinations of Picault, Johnson, Fuchigami and Ooyama.

Rather than repeat in toto the positions and the arguments of Appellants or the Examiner, we make reference to the brief and the answer for their respective positions.

OPINION

We have considered the rejection advanced by the Examiner. We have, likewise, reviewed Appellants' arguments against the rejection as set forth in the brief.

We affirm-in-part.

In rejecting a claim under 35 U.S.C. § 103, an Examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward then shifts to the Applicants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir.

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1986); In re Piasecki, 745 F.2d

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1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

We are further guided by the precedence of our reviewing court that the limitations from the disclosure are not to be imported into the claims. In re Lundberg, 244 F.2d 543, 548, 113 USPQ 530, 534 (CCPA 1957); In re Queener, 796 F.2d 461, 464, 230 USPQ 438, 440 (Fed. Cir. 1986). We also note that the arguments not made separately for any individual claim or claims are considered waived. See 37 CFR § 1.192(a) and (c). In re Baxter Travenol Labs., 952 F.2d 388, 391, 21 USPQ2d 1281, 1285 (Fed. Cir. 1991) ("It is not the function of this court to examine the claims in greater detail than argued by an appellant, looking for nonobvious distinctions over the prior art."); In re Wiechert, 370 F.2d 927, 936, 152 USPQ 247, 254 (CCPA 1967) ("This court has uniformly followed the sound rule that an issue raised below which is not argued in this court, even if it has been properly brought here by a reason of appeal, is regarded as abandoned and will not be considered. It is our function as a court to decide disputed issues, not to create them.") (Emphasis original.)

Analysis

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We now discuss the three groups of claims as elected by Appellants (brief, page 4).

Rejection of claims 1, 2, 4, 15, 16, 18, 19, 22, 23, and 25 to 28

We first consider independent claim 1. We do not agree with Appellants (brief, pages 6 to 8) that the Examiner is unjustified in combining Picault and Ooyama. We have evaluated the Examiner's reasoning to combine (answer, pages 5 and 6) in light of the two declarations attached to the brief and find that the combination is justified. The cost and the conductivity referred to by the Examiner and argued by Appellants are relative terms and are not solely conclusive to suggest the combination of Ooyama and Picault. Picault itself suggests the teaching to use the claimed Cu-Ti alloy (even though there are additional elements of Fe and Co, see abstract, it is still an alloy having Cu-Ti) as a conductor "requiring high mechanical strength and conductivity" (col. 4, lines 55 to 61). However, we do not agree with the Examiner regarding the claimed electrical connection and the physical positioning of the first layer and the second layer relative to the back surface of the slider. If we follow, in Ooyama,

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the Examiner's terminology of designating 12 as the claimed back surface of the slider 11, then the recited first layer is not located between the designated back surface and the second layer (32 and 33). On the other hand, if we designate, in Ooyama, 112 as the back surface of the slider, then the physical positioning would satisfy the claimed relationship, however, the claimed electrical connection is not satisfied. We find no teaching or a line of reasoning provided by the Examiner which would obviously enable an artisan to meet both the claimed recitations in the combination of Ooyama and Picault. Therefore, we do not sustain the obviousness rejection of claim 1 and its dependent claims 2 and 4.

With respect to independent claims 15 and 22, Appellants mainly rely on the same reasons given for claim 1 (brief, page 8). We find that each of these claims does not require the two recitations discussed relating to claim 1. In Ooyama, we designate 112 as the back surface of the slider 11, and 12 as the trailing edge of the slider. That would meet the claimed electrical connection and the relative physical location of the first layer (31), the second layer (32, 33), and the back surface (112) of the slide. Furthermore, contrary to

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Appellants' arguments (brief, page 8), Ooyama does show support 21 having a cavity (even though there are more than one) and electrical cables have a portion positioned over the cavity. Therefore, we sustain the obviousness rejection over Ooyama and Picault of independent claims 15 and 22, and their grouped claims 16, 18 and 19, and claims 23, and 25 to 27. With respect to claim 28, in Ooyama, each set of the first and second bending parts serve the recited flexible connection between the slider 11 and each flexure arm of support 21. Therefore, we sustain the obviousness rejection of claim 28 over Ooyama and Picault.

Rejection of claims 5, 6, and 8 to 12

We consider independent claim 5 as representative of this group. The Examiner has added Johnson to the combination of Ooyama and Picault discussed with respect to claim 1 above. We find that claim 5 has the same two limitations as claim 1 discussed above. The addition of Johnson does not cure the deficiencies noted above in the combination of Ooyama and Picault with respect to claim 1. Johnson was used for an entirely different purpose. Therefore, we do not sustain the obviousness rejection of independent claim 5 and its dependent

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claims 6 and 8 to 12.

Claims 21, 34, 35, 37, 38 and 40

We first consider claim 34. The Examiner (answer, page 9) adds Fuchigami to the combination of Ooyama and Picault to meet the limitation of "an electrical cable . . . is not positioned over the slider." Additional to the analysis of the combination of Ooyama and Picault above, we agree with the Examiner that Fuchigami does show part of the wiring board 5 (electrical cable) as not positioned over the slider 2. Therefore, we sustain the obviousness rejection of claim 34 and its grouped claims 35, 37 and 38, since they have not been argued separately.

Regarding claims 21 and 40, the Examiner (answer, page 9) points in Fuchigami to electrical cable 5 which comprises a curved portion not positioned over the slider (2) for ensuring resonant frequency response for the slider. We are not convinced by Appellants' conclusory statement (brief, pages 9 and 10) that "[t]here is no suggestion in any of the prior art for combining the curved conductor of Fuchigami with the suspension of Ooyama et al., and the materials of Picault et al., to yield the suspension of claims 21 and 40." We are of

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the view that Appellants are looking for an explicit and specific teaching for the combination. That is not required by our reviewing court as it has been well settled that while there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination (see B.F. Goodrich Co. v. Aircraft Braking Sys. Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996) and In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988)) as Appellants would apparently have us believe. Rather, the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Moreover, in evaluating such references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). Therefore, we sustain the obviousness

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rejection of claims 21 and 40 over Ooyama, Picault and
Fuchigami.

In summary, we have sustained the obviousness rejection
with respect to claims 15, 16, 18, 19, 21 to 23, 25 to 28, 34,
35, 37, 38 and 40, but have reversed with respect to claims 1,
2, 4 to 6, and 8 to 12.

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Accordingly, the decision of the Examiner rejecting claims 1, 2, 4 to 6, 8 to 12, 15, 16, 18, 19, 21 to 23, 25 to 28, 34, 35, 37, 38 and 40 is affirmed-in-part.

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

AFFIRMED-IN-PART

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ERROL A. KRASS))
Administrative Patent Judge)	
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)	BOARD OF PATENT
STUART N. HECKER)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
)	
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PSL:hh

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