

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

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KENNETH L. POTTEBAUM,  
SVETLANA I. KOVINSKAYA, and JOHN D. STRICKLIN

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Appeal 2007-0683  
Application 10/121,772  
Technology Center 2800

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Decided: June 6, 2007

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Before JAMES D. THOMAS, JOSEPH F. RUGGIERO, and ALLEN R. MACDONALD, *Administrative Patent Judges*.

RUGGIERO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 1-8 and 11-22. We have jurisdiction under 35 U.S.C. § 6(b). An oral telephonic hearing was conducted on this appeal on May 23, 2007.

We affirm.

Appellants' disclosed invention relates to an actuator assembly for a disc drive in which first and second actuator arm assemblies project from the actuator assembly body portion. Each of the actuator arm assemblies has a distal end with a different mechanically configured mounting portion to which first and second flexure assemblies are mounted. The differing mechanical configurations are selected to provide the flexure arm assemblies with different mechanical resonance characteristics. (Specification 3).

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

1. An actuator assembly, comprising:  
a body portion;

first and second actuator arm assemblies depending at proximal ends thereof from the body portion and defining mounting portions at distal ends thereof, the actuator arm assemblies substantially identical except for different mechanically configured mounting portions; and

first and second substantially identical flexure assemblies attached to the mounting portions.

The Examiner relies on the following prior art references to show unpatentability:

|           |              |               |
|-----------|--------------|---------------|
| Nakanishi | US 5,014,142 | May 7, 1991   |
| Kaneko    | US 5,956,210 | Sep. 21, 1999 |

Claims 1, 4, 6, 7, 12, 13, 19, and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Nakanishi. Claims 2-5, 11, 14-18, 21, and 22 stand rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the Examiner offers Nakanishi alone with respect to claims 4, 5, 8, 17, 18, and 22, and adds Kaneko to Nakanishi with respect to claims 2, 3, 11, 14-16, and

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

## ISSUES

(i) Under 35 U.S.C § 102(b), does Nakanishi have a disclosure which anticipates the invention set forth in claims 1, 4, 6, 7, 12, 13, 19, and 20?

(ii) Under 35 U.S.C § 103(a), with respect to appealed claims 2-5, 11, 14-18, 21, and 22, has the Examiner established a prima facie case of obviousness based on Nakanishi alone and in a separate combination with Kaneko.

## PRINCIPLES OF LAW

### 1. ANTICIPATION

It is axiomatic that anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76, 77 USPQ2d 1321, 1325-26 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992). Anticipation

of a patent claim requires a finding that the claim at issue “reads on” a prior art reference. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945 (Fed Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (internal citations omitted).

## 1. OBVIOUSNESS

In rejecting claims under 35 U.S.C. § 103, it is 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 must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Furthermore, “‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007)(quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

## ANALYSIS

### 35 U.S.C. § 102(b) REJECTION

With respect to the 35 U.S.C. § 102(b) rejection of independent claims 1, 12, and 19 based on the teachings of Nakanishi, the Examiner indicates (Answer 3-4) how the various limitations are read on the disclosure of Nakanishi. In particular, the Examiner directs attention to the illustrations in Nakanishi's Figures 4-7, 12A, and 12B, as well as the description beginning at column 7, line 26 of Nakanishi.

In our view, the Examiner's analysis is sufficiently reasonable that we find that the Examiner has at least satisfied the burden of presenting a prima facie case of anticipation. The burden is, therefore, upon Appellants to come forward with evidence and/or arguments which persuasively rebut the Examiner's prima facie case. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived [see 37 C.F.R. § 41.37(c)(1)(vii)].

Appellants' arguments in response assert that the Examiner has not shown how each of the claimed features is present in the disclosure of Nakanishi so as to establish a prima facie case of anticipation. Appellants' arguments (Br. 12-16; Reply Br. 8-12) focus on the contention that, in contrast to the claimed invention, Nakanishi does not disclose first and second flexure arm assemblies and first and second actuator arm assemblies (except for the mounting portions) that are "substantially identical."

After careful review of the Nakanishi reference in light of the arguments of record, however, we are in general agreement with the Examiner's position as stated in the Answer. We simply find no support in Appellants' original disclosure for the interpretation of the claim language "substantially identical" urged by Appellants in the Briefs. To begin with the language "substantially identical" is not used anywhere in the Specification but, rather, the terminology "nominally identical" is used instead. (Specification 3:11, 5:13, 6:9, 8:2, 9:3, and 10:2). Aside from the lack of reconciliation of the differences between the wording "substantially identical" and "nominally identical" on the record before us, we can only glean from Appellants' lack of specificity in the disclosure that the claim terminology "substantially identical" is intended to be given its plain meaning in reference to the recited arm assemblies and flexure assemblies, i.e., structures which approach, but are less than, an exact match.

With the above discussion in mind it is our view that the Examiner has broadly, but reasonably, interpreted the claimed "substantially identical" actuator arm and flexure assemblies as corresponding to those disclosed by Nakanishi. We don't disagree with Appellants' characterization of the court decision in *Playtex v. Proctor Gamble, Co.*, 400 F.3d 901, 73 USPQ2d 2010 (Fed. Cir. 2005) as standing for the principle that the term "substantially" is a comparative term requiring that claimed features be compared to a basis or reference. It is our opinion, however, that, at the very least, in the particular Nakanishi embodiment (col. 7, ll. 34-37) in which the flexure assemblies (leaf springs 13a, 13b) have identical structural configuration but are made of stainless steels with differing elastic moduli, the ordinarily skilled artisan

would consider such flexure arm assemblies to be “substantially identical” when compared to Appellants’ disclosed arrangement. Further, whether or not Nakanishi intended each of the flexure and actuator arm assemblies to be different, as contended by Appellants, is of no moment in determining whether the Examiner erred in establishing a case of anticipation since the claimed terminology simply does not require strict identity of structure.

We further find to be unpersuasive Appellants’ contention (Reply Br. 8) that the Examiner has unreasonably established himself as the “sole arbiter of what *substantially identical* means. In our view, it is Appellants who, after submitting claims to structures which are not limited to features that are strictly identical, unreasonably contend that they also have the right to decide which features are or are not to be considered in determining whether structures are identical.

We also find to be without merit Appellants’ argument (Br. 11, Reply Br. 8) that the Examiner has improperly construed the language of claim 12 which is set forth in means-plus-function format. We find no error in the Examiner’s showing (Answer 8) that the different width mounting portion structure, illustrated in Figures 12A and 12B of Nakanishi, performs the function specified in the claim, is not excluded by any definition in Appellants’ Specification for an equivalent, and performs the identical function (attenuating a resonance response) in the same way and produces the same results.

We also make the observation from our own independent review of Nakanishi that, even in the strict interpretation of “substantially identical” urged by Appellants, the disclosure of Nakanishi meets all of the

requirements of independent claims 1, 11, and 19. We begin by noting that the data head supporting structure 15 and the servo head supporting structure 16 in Nakanishi are each made of three components, i.e., actuator arm assemblies (12a',12a'-1 and 12b',12b'-1), flexure assemblies (leaf springs 13a and 13b), and core sliders 14a and 14b. (Nakanishi, col. 4, ll. 37-57). As with Appellants' claimed invention, the objective of Nakanishi is to attenuate the resonance response in the disc drive by varying the vibration oscillation characteristics of the head supporting structures 15 and 16. (Nakanishi, Figure 9).

In implementing this objective, Nakanishi describes varying the structural characteristics of the individual components of the head supporting structure in three separate embodiments. In the first embodiment, illustrated in Nakanishi's Figures 6 and 7, the width, thickness, or material composition of the flexure assemblies (leaf springs 13a and 13b) is slightly varied from each other. (Nakanishi, col. 5, ll. 41-50 and col. 7, ll. 38-51). Since the differing oscillation characteristics of the head supporting structures 15 and 16 in this embodiment are attributed solely to the variations in the flexure assemblies, it is reasonable to conclude that the other head supporting structure components, i.e., the actuator arms 12a and 12b and the core sliders 14a and 14b are at least substantially structurally identical.

In the next embodiment (Nakanishi, Figures 11A and 11B and col. 7, ll. 38-51), the differing head structure oscillation characteristics are implemented by slightly varying the thickness of the core sliders 14a and 14b from each other. That the structure of the other two head components,

i.e., the actuator arms 12a and 12b and the flexure assemblies 13a and 13b are identical is confirmed by Nakanishi's disclosure which states "[i]n the other respects, the head supporting structure 15 is substantially identical to the head supporting structure 16." (Nakanishi, col. 7, ll. 44-46).

In the third embodiment, which is the most pertinent to Appellants' claimed invention, the oscillation characteristics of the head structures 15 and 16 are made different by slightly varying the structural characteristics of the mounting portions 12a' and 12b' of the actuator arm components. (Nakanishi, Figures 12A and 12B). Again, as with the other two embodiments, since the differing oscillation characteristics of the head supporting structures are attributed solely to the different structural configuration of the mounting portion of the actuator arm assemblies, it is reasonable to conclude that the other components of the head supporting structures, i.e., the flexure arms 13a, 13b, and the core sliders 14a, 14b, are "substantially identical" to each other.

With the above analysis in mind, it is apparent to us that the third embodiment of Nakanishi satisfies all of the claimed requirements of independent claims 1, 12, and 19. We find in this third embodiment of Nakanishi an actuator assembly having a body portion (hub 9), first and second actuator arm assemblies which depend from the body portion (hub 9) at the proximal end thereof (12a'-1, 12b'-1) and distal ends which define mounting portions (12a', 12b'). Further, the arm assemblies are substantially identical (the ring shaped proximal end portions) except for the differently configured, i.e., rectangularly and trapezoidally shaped, mounting

portions at the distal end with the substantially identical flexure assemblies 13a, 13b attached to the mounting portions.

In view of the above discussion, since all of the claimed limitations are present in the disclosure of Nakanishi, the Examiner's 35 U.S.C. § 102(b) rejection of independent claims 1, 12, and 19, as well as dependent claims 4, 6, 7 13, and 20 not separately argued by Appellants, is sustained.

Turning to a consideration of the Examiner's 35 U.S.C. § 103(a) rejection of dependent claims 4, 5, 8, 17, 18, and 22 based on Nakanishi alone, we sustain this rejection as well. Appellants have made no separate arguments for patentability of these claims relying, instead, on arguments made against the parent independent claims 1, 12, and 19, which arguments we found to be unpersuasive as discussed *supra*.

We also sustain the Examiner's obviousness rejection of dependent claims 2, 3, 11, 14-16, and 21 in which the Nakanishi reference is modified with the spacer feature teachings of Kaneko. Appellants' arguments in response are directed solely to the Examiner's alleged misinterpretation of the language "a spacer" in claims 2, 14, and 21. We don't disagree with Appellants' contention (Br. 12; Reply Br. 9) that the indefinite article "a" when used with "comprising" means "one or more". The issue with respect to the Examiner's rejection, however, is whether the claimed recitation "a spacer" should be interpreted as meaning "only one spacer." We find no basis in the claim language as presented for the interpretation urged by Appellants. We find nothing in the claims which would preclude a spacer being included between each of the actuator arms 1 and the flexure arms 2 such as in Kaneko.

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## CONCLUSION

In summary, we have sustained the Examiner's rejections of all the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-8 and 11-22 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

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