

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board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. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ZINE-EDDINE BOUTAGHOU

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Appeal No. 2000-1240  
Application 09/094,067

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ON BRIEF

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Before THOMAS, HAIRSTON and LALL, Administrative Patent Judges.  
THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 1, 2 and 4-19. Claim 3 is objected to by the examiner as depending from a rejected base claim but is otherwise indicated to be allowable if set forth in independent form.

Representative claim 1 is reproduced below:

1. A rotating disk data storage device, comprising:

a disk drive base;

a rotatably mounted disk for recording data, said disk having an axis of rotation and a circular aperture at its center for mounting said disk on a rotatable hub;

a single-piece integrally-formed hub/clamp/rotor member for mounting said disk, said hub/clamp/rotor member being mounted for rotation about said axis, said hub/clamp/rotor member forming a rotor housing of a spindle motor rotor, said hub/clamp/rotor member comprising a support structure for supporting said disk, and a clamp structure, said clamp structure locking said disk in place during operation of said rotating disk data storage device;

a set of rotor magnets attached to said rotor housing of said hub/clamp/rotor member;

a spindle motor stator attached to said base for driving said rotor magnets;

at least one transducer head for reading data stored on said disk; and

a moveable actuator mounted on said disk drive base for positioning said transducer head to read data recorded on said disk.

The following references are relied on by the examiner:

Stinesen	4,791,624	Dec. 13, 1988
Mukawa	5,501,760	Mar. 26, 1996
	(filing date Mar. 16, 1994)	
Obara (EPA)	0 613 134	Aug. 31, 1994

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Claims 14-19 stand rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential elements. Claims 1, 2, 4, 5, 7, 9 and 11 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Obara. This reference, further in view of Stinesen, is utilized to reject claims 6, 8, 10, 12 and 13 under 35 U.S.C. § 103. Finally, claims 14 through 19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Mukawa.

Rather than repeat the positions of the appellant and the examiner, reference is made to the brief and the answer for the respective details thereof.

#### OPINION

Turning first to the rejection of claims 14 through 19 under the second paragraph of 35 U.S.C. 112, we reverse this rejection. In response to this rejection, set forth originally in the final rejection, appellant filed an amendment after final rejection which was entered by the examiner in accordance with the Advisory action mailed on May 12, 1999. As expressed at the bottom of page 4 of the brief, appellant was of the understanding that the entry of this amendment obviated the rejection which has not been

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discussed in the brief. On the other hand, the Advisory action does not indicate that this rejection is overcome by the amendment after final rejection filed as Paper No. 8 on May 3, 1999. We therefore treat the rejection on the merits.

The preamble of claim 14 only recited a hub whereas the body of this claim recited a hub/clamp/rotor member. The concerns raised by the examiner at page 4 of the answer appear to us to have been obviated by the entry of the amendment since the preamble and the body of claim are now set forth in consistent language. Therefore, the rejection is reversed.

Next, we address the rejection of claims 1, 2, 4, 5, 7, 9 and 11 as being anticipated by Obara under 35 U.S.C. § 102. In accordance with appellant's grouping of claims at page 4 of the brief, and in accordance with appellant's arguments as to this rejection that begin at page 7 of the brief, appellant presents no arguments as to independent claim 9 and all the respective dependent claims encompassing this rejection. Therefore, we treat claim 1 as the representative claim for purposes of our analysis as to this rejection.

Among other features not argued, the focus of the dispute between the examiner and appellant as to representative claim 1 on appeal is the examiner's view that the single-piece integrally formed hub/clamp/rotor member set forth in this claim is met by rotor 9 of representative Figures 1 and 2 of Obara. The examiner has asserted, and we agree, that the flange 9a of the rotor 9 meets the feature of a support structure of the claims, and this flange portion 9a, together with the body of the rotor 9 itself to which it is integrally formed, comprise the claimed rotor housing. The examiner initially asserts at page 4 of the answer that there is a clamping structure, as claimed, embodied in the vertical component of the rotor 9 abutting the disk hole shown in the figures.

Although we agree with appellant's view beginning at page 7 of the brief that Obara is completely silent as to the issue of clamping, it is completely silent only in text or words, but clearly indicates to us, and to the artisan we believe, that the disk 18 is press-fit to the outside radius of the rotor 9 as illustrated in Figures 1-5 and 12 of Obara. "Obara is considered to not utilize any further clamping structure, since none is described nor depicted. The friction/interference fit is

considered sufficient during operation of the disk drive." Answer, page 6. Thus, the examiner takes the view that the claimed clamp structure is shown in Obara.

We agree with the examiner's views because representative claim 1 does in fact only recite "a clamp structure" and does not recite a clamp per se or the detailed disclosed version of clamping fingers. The function of the broadly claimed "a clamp structure" is merely for "locking said disk in place during operation of said rotating disk data storage device." This later quoted material does not recite that a broadly claimed "a clamp structure" clamps anything.

Because Obara has consistent teachings throughout its written description that the rotor has been integrally formed with other parts in various figures, and the cross-sectional views of the various Figures 1-5 and 12 clearly show that the rotor 9 is made up of "a single-piece integrally formed hub/clamp/rotor member," the examiner's views are consistent with the arguments at the bottom of page 7 of the brief which references the definition of the one-piece, integrally-formed part of the hub 103 as disclosed at specification page 8, lines 5-11.

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It is precisely because there is no written description of the exact manner in which the disk 18 is affixed to the rotor 9 in Obara, but the drawings clearly show such, that we conclude that the artisan is well aware that the disk 18 must be affixed to the rotor 9 during operation for Obara's invention to work. Appellant even recognizes this at page 8 of the brief where he indicates that it "is well known in the art that there must be some means for attaching the disk to the rotor." We do not agree with appellant's view expressed at the bottom of page 8 of the brief that Obara likely intends that a conventional ring clamp be applied since this is mere speculation by appellant.

In light of this analysis, we agree with the examiner's view quoted earlier and expressed at page 6 of the answer that Obara essentially illustrates a friction/interference fit. This analysis is still consistent with an anticipatory rejection within 35 U.S.C. § 102. The rule that anticipation requires that every element of a claim appears in a single reference accommodates situations where the common knowledge of "technologists" is not recorded in a reference, i.e., where technical facts are known to those in the field of the invention. Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1269,

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20 USPQ2d 1746, 1749-50 (Fed. Cir. 1991). Similarly, In re Graves, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), confirms the longstanding interpretation that the teachings of a reference may be taken in combination with knowledge of the skilled artisan to put the artisan in possession of the claimed invention within 35 U.S.C. § 102 even though the patent does not specifically disclose certain features.

The integral nature of the rotor 9 in Obara with the other described parts in the figures offers significant advantages as best set forth in the abstract and the discussion at columns 6 and 7 of this reference. The manner in which this is achieved is discussed at lines 15-18 at column 7 where it indicates that an integral rotor assembly is formed by "a moulding process."

In view of the foregoing, the rejection of claims 1, 2, 4, 5, 7, 9 and 11 as being anticipated by Obara under 35 U.S.C. § 102 is sustained.

We also sustain the rejection of respective dependent claims 6, 8, 10, 12 and 13 under 35 U.S.C. § 103, in view of the collective teachings and showings of Obara and Stinesen. Appellant's arguments as to this issue begin at the bottom of page 9 and extend to page 12. However, the examiner notes at

page 7 of the answer that the appellant's arguments appear to be misplaced because the prosecution history reveals the focus only upon claim 3, which is no longer rejected. Moreover, appellant, in the arguments presented in the noted pages of the brief, makes no references to the claims and no mention of Stinesen or any allegations of the improper combinability of Obara and Stinesen. In effect, appellant continues to argue Obara alone. As noted earlier, the examiner's views of the rotor 9 in Obara and Obara's own teachings are consistent with the single piece, integrally formed structure claimed as well as the disclosed definition at page 8 of the specification, lines 5-8.

Finally, we turn to the rejection of claims 14-19 under 35 U.S.C. § 102 as being anticipated by Mukawa. We reverse this rejection essentially because we agree with the appellant's views expressed at the top of page 14 of the brief that Mukawa does not teach that the claimed "hub/clamp/rotor member" set forth in claim 14 on appeal includes a rotor housing for a spindle motor. Mukawa's table section 2 in the various figures is not a rotor housing for a spindle motor; it is merely a solid member as argued by appellant and is attached to the shaft 1 of the motor 5. The disk table 2 in the various figures of Mukawa does not

therefore provide any housing for any motor components associated with the claimed spindle motor rotor and the like since the motor 5 is shown to be separate from the assembly comprising the various parts of the table section 2. Mukawa's motor 5 is separately attached to the chassis 6 and the shaft 1 of the motor protruding through this chassis 6 to engage the cylindrical supporting section 7 of the table section 2 such as in representative Figure 2 of Mukawa. Although this feature is argued by appellant at page 14 of the brief, the examiner's responsive arguments portion of the answer at pages 7 and 8 does not address this argued feature at all. None of the various figures in Mukawa mount the motor 5 in any manner differently than that shown in Figure 2 of this reference. Therefore, the decision of the examiner rejecting independent claim 14 and its respective dependent claims 15-19 under 35 U.S.C. § 102 is reversed.

NEW REJECTION UNDER 37 CFR § 1.196(b)

Claims 14, 15 and 17-19 are rejected under 35 U.S.C. § 103 as being obvious over Obara alone. For the same reasons as set forth in detail earlier in this opinion as to our affirmance of

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representative claim 1 on appeal, these claims are also rejected. Because of the prolific use of the future end use language associated with the word "for" in claim 14, it appears to be much broader in subject matter than the subject matter encompassed by representative claim 1 anyway, and fewer elements are recited in claim 14. Moreover, the key features of the support structure and the broadly claimed clamp structure are also set forth in claim 14 in a corresponding manner as in claim 1 on appeal. We note again that the integral nature of the teaching of the rotor 9 in Obara is provided by the moulding process noted earlier at column 7, lines 15-18 of this reference. This teaching suggests the moulding of a plastic-type material set forth in the dependent claims. In a manner consistent with the examiner not rejecting dependent claim 3, we do not reject dependent claim 16 since it has corresponding features as claim 3 relating to the clamping structure being embodied in the form of circumferentially spaced fingers.

In view of the foregoing, the examiner's rejection of claims 14-19 under the second paragraph of 35 U.S.C. § 112 is reversed. The rejection of claims 1, 2, 4, 5, 7, 9 and 11 under 35 U.S.C. § 102 as being anticipated by Obara is sustained, as is the

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rejection under 35 U.S.C. § 103 of claims 6, 8, 10, 12 and 13, further in view of Stinesen. We have reversed the rejection of record of claims 14-19 under 35 U.S.C. § 102 as being anticipated by Mukawa. Finally, we have instituted a new ground of rejection of claims 14, 15 and 17-19 under 35 U.S.C. § 103 as being obvious over Obara alone. Therefore, the decision of the examiner is affirmed-in-part.

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision . . . .

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter

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reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellant elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for reconsideration thereof.

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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  
37 CFR 1.196(b)

James D. Thomas	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
Kenneth W. Hairston	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
Parshotam S. Lall	)	
Administrative Patent Judge	)	

JDT/cam

Roy W. Truelson

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IBM Corporation, Dept. 917  
3605 Highway 52N  
Rochester, NY 55901