

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JOSEPH LIN

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Appeal No. 98-0594  
Application 08/615,461<sup>1</sup>

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ON BRIEF

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Before McKELVEY, Senior Administrative Patent Judge, and  
SCHAFFER and LEE, Administrative Patent Judges.

LEE, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 12-15. Claims 1-11 have been canceled. No claim has been allowed. The real party in interest is Seagate Technologies, Inc.

**References relied on by the Examiner**

Tsujino	5,315,464	May, 24, 1994
Jordan	4,505,238	March 19, 1985

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<sup>1</sup> Application for patent filed March 14, 1996. According to the appellant, it is a continuation of application 08/284,368, filed August 2, 1994.

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### The Rejections on Appeal

Claims 12-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Tsujino and Jordan. A previous rejection of claims 12-15 under 35 U.S.C. § 112, first paragraph, has been withdrawn. See Paper No. 10. The appellant requests that in this appeal, claims 12-15 should stand or fall together. (Brief at 4).

### The Invention

The claimed invention is directed to a method for providing a magnet assembly for a disk drive. Each of claims 12, 13 and 15 are independent claims. Claim 14 depends from claim 13.

Independent claims 12, 13, and 15 are reproduced below, of which claim 13 appears to be the broadest:

12. A method of fabricating a magnet assembly for voice coil motor of a disk drive, comprising the steps of:

    locating a first magnet plate within a die casting for a cover of the disk drive;

    providing molten material from which said cover is made into said die casting around said first magnet plate;

    locating a second magnet plate within a die casting for a base of the disk drive;

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providing molten material from which said base is made into said die casting around said second magnet plate;

affixing at least one magnet to said first and/or second magnet plates; and

joining said base with said cover to provide a sealed environment for the disk drive.

13. A method of providing a magnet plate for a disk drive, comprising the steps of:

locating a magnet plate within a die casting for at least a portion of a housing of the disk drive; and

providing molten material from which said at least a portion of the housing is made into said die casting around said magnet plate.

15. A method of providing a magnet plate for a disk drive, comprising the steps of:

locating a magnet plate within a die casting for at least a portion of a housing of the disk drive;

providing molten material from which said at least a portion of the housing is made into said die casting around said magnet plate; and

interlocking said magnet plate with said at least a portion of the housing during said step of providing molten material into said die casting around said magnet plate.

#### Opinion

The rejection of claims 12-15 cannot be sustained.

A reversal of the rejection on appeal should not be

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construed as an affirmative indication that the appellant's claims are patentable over prior art. We address only the positions and rationale as set forth by the examiner and on which the examiner's rejection of the claims on appeal is based.

The examiner's rationale contains several errors, deficiencies, and omissions, all of which undermine the persuasiveness of the stated ground of rejection.

On page 3 of the answer, the examiner states that Tsujino shows the step of "locating the magnet plate within a die casting (the base and cover are both aluminum die casted: see column 2, lines 65-68) for at least a portion of the housing of the disk drive." The finding has no basis on this record. Tsujino does not disclose locating a magnet plate within any die casting used to form a portion of the disk drive housing.

While the cover 14 and the bottom casing 12 (Figure 1) of Tsujino's disk drive may have been formed by pouring molten material inside a die casting, the magnet plate of Tsujino (38, 40) is subsequently connected to the cover or the bottom casing by screws and is not disclosed anywhere as having been placed within the die casting used to form the cover or the

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bottom casing. The examiner confuses "die casting" which forms parts by holding molten material therein and the parts which have been formed by the molten material held by the die casting. Note that on page 11 of the specification, it is described that:

During the fabrication process, the preformed magnet plates are positioned within the die castings used to form the base and cover. Once the magnet plates are properly positioned, the molten aluminum is injected into the die castings, and forms around the magnet plates.

Neither the cover nor the base of Tsujino can reasonably be regarded as "die casting" as that phrase is used in the claims. Both are elements made from molten material injected within the die casting.

The examiner's finding on page 4 of the answer states that "the practice of permanently attaching two elements by providing and hardening molten material around the elements to be joined is a notoriously old and well known manufacturing process" is also misplaced. In that regard, the examiner cites Jordan and states (answer at page 4):

Jordan shows a first metal element (shown is a cylinder tube 5 having counterpiece 6) located within a second metal housing (shown is a cylinder head 1 made of aluminum cast alloy and having a groove 2), and teaches providing molten material

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from which the second metal housing is made (such as aluminum alloy, see column 2, lines 16-20) into the second metal housing, (via filling opening 3) around the first metal element.

The appellant's claimed invention is more than connecting two elements already made, with each other, by placing molten material therebetween. The above-quoted teaching from Jordan does not disclose or reasonably suggest placing a first element within the die casting used to form the second element such that the connection between the first and the second element is made when the second element is formed by hardening molten material in the die casting for the second element.

Finally, on page 5 of the answer, the examiner does begin to discuss the appellant's claimed invention. The examiner states:

[L]ocating preforms or other parts into a die casting mold before introducing molten material so as to connect the multiple preforms and the molded object during fabrication is also a notoriously old and well known methodology. An entire subclass has been devoted to such fabrication in class 164 (Metal Founding), subclass 98, the designation of which is: Process . . . Shaping liquid metal against a forming surface . . . Composite article forming . . . Shaping metal and uniting to a preform (i.e. onto a self-sustaining body). To use such a method to create the base and cover would have been obvious to one of ordinary skill in the art as an efficient way to connect the parts without additional fasteners or manufacturing steps.

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However, no specific prior art reference has been applied which illustrates the so called "notoriously well known technique." Neither one of the two references included in the stated ground of rejection contains the necessary teaching. Nor do the two cited references in combination yield the suggestion. It is the examiner's burden and obligation to produce the evidence sufficient to render obvious the rejected claims. That, the examiner has not done. Note that the examiner's discussion concerning classification of inventions falls short of identifying any particular reference against the appellant's claims, which includes the feature at issue here.

Moreover, even assuming that it was generally known to connect some element to another element by placing the former in the die casting which forms the latter and then applying molten material into the die casting, that does not automatically establish that it would have been obvious to place the magnetic plate for a disk drive within the die casting which forms a portion of the disk drive housing. A comparison should be made between a pair of elements known to be connected in this manner and the combination of magnetic

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plate and disk drive housing. Since the examiner provided no example of specific prior art elements connected in the manner required by the claims, no meaningful comparison was or could have been made by the examiner. Perhaps some reference does exist which, in combination with Tsujino, would have rendered obvious the appellant's claimed invention, but the examiner has cited none. The appellant disputes the conclusion that it would have been obvious to one with ordinary skill in the art to connect the magnetic plate to the disk drive housing by executing the claimed step of placing the magnetic plate within the die casting for forming at least a portion of the disk drive housing. In this circumstance, the examiner must, in discharging his duty and obligation for setting forth the evidentiary basis of the rejection made, identify a specific reference which reasonably would have suggested the claimed step. No such identification was made. We cannot simply presume that there is such prior art.

For the foregoing reasons, the rejection of claims 12-15 cannot be sustained.

#### **Conclusion**

The rejection of claims 12-15 under 35 U.S.C. § 103 as

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being unpatentable over Tsujino and Jordan is reversed.

**REVERSED**

FRED E. McKELVEY, Senior	)	
Administrative Patent Judge	)	
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	)	
	)	
	)	BOARD OF PATENT
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Administrative Patent Judge	)	INTERFERENCES
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