

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

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(2) is not binding precedent of the Board.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

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Appeal No. 97-0604  
Application 08/306,766<sup>1</sup>

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ON BRIEF

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Before HAIRSTON, JERRY SMITH and CARMICHAEL, Administrative  
Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134  
from the examiner's rejection of claims 1-10, which constitute

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<sup>1</sup> Application for patent filed September 15, 1994.

Appeal No. 97-0604  
Application 08/306,766

all the claims in the application. An amendment after final rejection was filed on March 18, 1996 and was entered by the examiner.

The disclosed invention pertains to a method and apparatus for causing the output voltage of an inertial transducer to be linearly proportional to the power supply voltage.

Representative claim 1 is reproduced as follows:

1. In an inertial transducer: a vibratory element, a drive circuit for applying a drive signal to the vibratory element, a pickup circuit coupled to the vibratory element for providing an output signal corresponding to movement of the vibratory element, a power supply for supplying an operating voltage to the drive circuit, and means responsive to the power supply voltage for controlling the drive circuit so that the drive signal and the output signal are proportional to the supply voltage.

The examiner relies on the following references:

|                          |           |                       |
|--------------------------|-----------|-----------------------|
| Macy et al. (Macy)       | 4,930,351 | June 05, 1990         |
| Florida et al. (Florida) | 5,426,970 | June 27, 1995         |
|                          |           | (filed Aug. 02, 1993) |

Claims 1-10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Macy. Claims 1-10 also stand rejected under 35 U.S.C. § 102(e) as being anticipated

Appeal No. 97-0604  
Application 08/306,766

by the disclosure of Florida.

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the disclosures of Macy and Florida do not fully meet the invention as set forth in claims 1-10. Accordingly, we reverse.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing

Appeal No. 97-0604  
Application 08/306,766

the recited functional limitations. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

Each of Macy and Florida teaches an inertial transducer, similar to the transducer of the claimed invention, in which acceleration is measured as the result of a vibratory element in the transducer. The examiner points out the teachings of Macy and Florida and notes that each of them uses an automatic gain control (AGC) circuit which receives the power supply voltage [answer, pages 3-4].

Appellant responds that Macy and Florida are examples of the admitted prior art, and that neither of them suggests using the power supply as a reference voltage for the AGC circuit or making the output signal proportional to the supply voltage in any way [brief, pages 4-9]. Additionally, appellant points out that each of the independent claims has a limitation in the form of a means or step responsive to the power supply voltage for controlling the drive circuit so that

Appeal No. 97-0604  
Application 08/306,766

the drive signal and the output signal are proportional to the supply voltage. Appellants argue that neither Macy nor Florida discloses this means or step.

The examiner responds that there is clearly a power supply voltage in Macy and Florida, and this voltage is applied to the drive circuit of the transducer. The examiner argues that since the drive signal of the references and the power supply voltage are "related" to each other, they must be proportional in the manner recited in the independent claims. The examiner also attempts to show that the elements of appellant's Figure 1 are present in the figures of Macy and Florida. In response, appellant argues that two items being "related" does not establish that the relationship is "proportional" as recited in the independent claims.

We will not sustain either of the examiner's rejections. At the outset, we note that the examiner's attempt to show that the same elements are present in appellant's Figure 1, Macy's Figure 16 and Florida's Figure 5 is completely irrelevant to the question of whether Macy or Florida anticipates the claimed invention. As noted above, each of the independent claims recites that the drive signal

Appeal No. 97-0604  
Application 08/306,766

and the output signal are proportional to the supply or operating voltage. The comparison of figures in Macy and Florida with the instant application fails to consider this limitation of the claims.

The examiner's attempt to define the term "proportional" to mean "related to" also cannot be accepted. The disclosed invention and the claims use the term proportional in its correct mathematical sense that the drive signal and the output signal change in a linear ratio with changes in the supply voltage. The output signals in Macy and Florida are not proportional to the supply voltage because Macy and Florida attempt to keep the output signal at a constant value regardless of the value of the supply voltage. Thus, the output signals in Macy and Florida are neither proportional to the supply voltage nor related to the supply voltage because they are intended to be independent of the supply voltage.

For all the reasons discussed above, there is at least one feature of all the appealed claims which is not disclosed by Macy or Florida. Therefore, the rejections of the examiner under 35 U.S.C. § 102 cannot be sustained. Accordingly, the

Appeal No. 97-0604  
Application 08/306,766

decision of the examiner rejecting claims 1-10 is reversed.

REVERSED

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|--------|-----------------------------|---|---------------|
|        | KENNETH W. HAIRSTON         | ) |               |
|        | Administrative Patent Judge | ) |               |
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|        | JERRY SMITH                 | ) | BOARD OF      |
| PATENT |                             | ) |               |
|        | Administrative Patent Judge | ) | APPEALS AND   |
|        |                             | ) | INTERFERENCES |
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|        | JAMES T. CARMICHAEL         | ) |               |
|        | Administrative Patent Judge | ) |               |

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Appeal No. 97-0604  
Application 08/306,766

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