

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. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte AMANULLAH KHAN and WARREN COON

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Appeal No. 2003-0273  
Application No. 09/863,664

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ON BRIEF

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Before ABRAMS, HAIRSTON, and NASE, Administrative Patent Judges.  
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 23-33, which are all of the claims pending in this application.

We AFFIRM-IN-PART.

### BACKGROUND

The appellants' invention relates to a method of assembling a disk drive suspension for supporting a slider and a microchip. An understanding of the invention can be derived from a reading of exemplary claim 1, which has been reproduced below.

The sole prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Goss	6,014,289	Jan. 11, 2000 (filed Mar. 22, 1994)
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Claims 23 and 33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Goss.

Claim 24-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goss.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the Answer (Paper No. 8) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 7) for the appellants' arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

*Claim 23*

A method assembling a disk drive suspension having a microchip mounted to its rigid portion and a flexible conductor extending along the rigid portion length, including forming a through opening in said rigid portion, mounting said microchip in said opening, and electrically connecting said microchip to said flexible conductor in its through opening-mounted condition.

*The Rejection Under Section 102*

Claims 23 and 33 stand rejected as being anticipated by Goss. Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. See In re Paulsen, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994) and In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). We find claim 23 to be anticipated by Goss, and claim 33 not to be so. Our reasoning follows.

Goss is directed to a suspension for supporting a slider carrying a microchip in operating proximity to a disk. It discloses a two-piece load beam comprising a base 12 that is stiffened over a portion of its length (monocoque region 30) by a shell 31 attached thereto, so as to create a cavity therebetween (Figure 4). Base 12 is provided with an opening 51 that is larger than microchip 20 and through which microchip 20 is inserted into the cavity for installation on the load beam (column 8, lines 39-43). An opening 50 smaller than microchip 20 is provided on shell 31, and the microchip is attached to shell 31 at its edges, which overlap the periphery of opening 50 (column 8, lines 43 and 44).

The relationship between microchip 20 and the load beam is described in the following manner:

Although in a preferred low profile monocoque HSA [head suspension assembly] the VTC IC may slightly protrude, the space inside the monocoque region 30 is large enough to totally encase a custom IC and all of the connections to its pins (column 8, lines 44-47).

The only argument set forth by the appellants with regard to the rejection of claim 23 is that the Goss microchip is not mounted “in” the opening 51. We do not agree. As shown in Figure 5 and described in column 8, at least a portion the microchip protrudes through and therefore is mounted “in” opening 51, and thus it is our view that the terms of claim 23 are met by the Goss device, and we will sustain the rejection.

Claim 33 requires that there be a load beam having a base portion, a spring portion, and a rigid portion, and that a slider be mounted on “a first side” of the rigid portion and a microchip on “a second side” of the rigid portion. The load beam in Goss is a two-piece construction comprising a base 12 that is caused to be rigid by the presence of a shell 31 attached thereto. In light of the appellants’ specification, we interpret the first and second “sides” of the load beam to be the outer surfaces thereof (see description of Figures 1 and 2 on page 7). In the Goss arrangement, the slider is mounted on a first side of the load beam but the microchip is not mounted on a second side of the load beam, but is located within the cavity of the load beam. Thus, the step of mounting the microchip on a second “side” of the load beam is not taught by Goss, and the reference does not anticipate claim 33.

*The Rejection Under Section 103*

Claims 24-32 stand rejected as being obvious in view of Goss. The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

Claim 24 recites a load beam having a predetermined thickness, and requires the steps of having a conductor define a locus of electrical contact along an extent of the load beam rigid portion, providing a microchip extending “through”<sup>1</sup> the rigid portion predetermined thickness, and electrically connecting the microchip to the conductor at the electrical locus. In the Goss device, although opening 51 in the base portion is

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<sup>1</sup>The common applicable definitions of “through” are “from one end or side to the other,” and “extending from one surface to another.” See, for example, Webster's new Collegiate Dictionary, 1973, page 1217.

larger than the microchip, opening 50 in the shell portion is smaller than the microchip and thus the microchip cannot extend “through” it and, it follows, does not extend “through” the predetermined thickness of the load beam.

In making the rejection of claim 24, the examiner admits that in the Goss construction the microchip does not extend “through” the predetermined thickness of the load beam, but takes the position that it would have been obvious to one of ordinary skill in the art to enlarge opening 50 to allow this to occur because “[t]hese configurations operate in the same manner and produce the same results. There is no showing of criticality” (Answer, page 4). We agree with the appellant that the examiner’s reasoning is defective and this rejection should not stand.

Since Goss attaches the microchip to the shell portion around the perimeter of the opening, making the opening larger would necessitate a modification of the Goss structure. The examiner has provided no reason why one of ordinary skill in the art would have been motivated to do so. In this regard, we point out that it is a feature of the Goss to “encase” the microchip within the cavity to protect it and its terminals (column 3, line 65 et seq.), and the modification proposed by the examiner would subvert this objective and thus, in our view, would operate as a disincentive for the artisan to make the proposed modification.

We therefore conclude that Goss fails to establish a prima facie case of obviousness with regard to the subject matter recited in independent claim 24, and we will not sustain the rejection of claim 24 or of claims 25-32, which depend therefrom.

CONCLUSION

The rejection of claim 23 as being anticipated by Goss is sustained.

The rejection of claim 33 as being anticipated by Goss is not sustained.

The rejection of claims 24-32 as being unpatentable over Goss is not sustained.

The decision of the examiner 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

NEAL E. ABRAMS  
Administrative Patent Judge

KENNETH W. HAIRSTON  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

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