

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 37

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte KEISUKE SHINAGAWA et al.

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Appeal No. 1997-3993  
Application No. 08/462,561<sup>1</sup>

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HEARD: January 13, 2000

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Before FRANKFORT, McQUADE, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 8 through 10, which are all of the claims pending in this application.<sup>2</sup>

We REVERSE.

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<sup>1</sup> Application for patent filed June 5, 1995.

<sup>2</sup> Claims 9 and 10 were amended subsequent to the final rejection.

BACKGROUND

The appellants' invention relates to an apparatus for ashing an organic film as part of a semiconductor device production process. A copy of the claims under appeal are contained in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

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|--|-----------|----------|
| Pammer<br>1967                         | 3,348,984 | Oct. 24, |
| Berleue et al.<br>9, 1978<br>(Berleue) | 4,088,023 | May      |
| Roop et al.<br>1978<br>(Roop)          | 4,116,016 | Sep. 26, |
| Barbee et al.<br>1987<br>(Barbee)      | 4,640,221 | Feb. 3,  |
| McCoy et al.<br>1987<br>(McCoy)        | 4,646,630 | Mar. 3,  |

Claims 8 through 10 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention.

Claims 9 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Roop in view of Pammer or Barbee and McCoy.

Claim 8 stands rejected under 35 U.S.C. § 103 as being unpatentable over Roop in view of Pammer or Barbee and McCoy as applied to claims 9 and 10 above, and further in view of Berleue.

Claims 9 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Barbee in view of McCoy and Roop.

Claim 8 stands rejected under 35 U.S.C. § 103 as being unpatentable over Barbee in view of McCoy and Roop as applied to claims 9 and 10 above, and further in view of Berleue.

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. 32, mailed January 9, 1997) and the supplemental answer (Paper No.

34, mailed June 2, 1997) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 31, filed November 14, 1996) and reply brief (Paper No. 33, filed March 7, 1997) 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.

#### **The indefiniteness rejection**

We will not sustain the rejection of claims 8 through 10 under 35 U.S.C. § 112, second paragraph.

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977).

In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph, is whether the claims meet the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. Some latitude in the manner of expression and the aptness of terms is permitted even though the claim language is not as precise as the examiner might desire. If the scope of the invention sought to be patented can be determined from the language of the claims with a reasonable degree of certainty, a rejection of the claims under 35 U.S.C. § 112, second paragraph, is inappropriate.

With this as background, we analyze the specific rejection under 35 U.S.C. § 112, second paragraph, made by the examiner of the claims on appeal. Specifically, the examiner stated (answer, p. 6) with respect to claim 10 that

it is unclear whether the recitation "adapted for" is intended to express a mere statement of intended use, or whether it is intended to be a structural limitation. If it is intended to be a structural limitation, it is unclear what structure would meet such a limitation.

The appellants responded to this rejection (reply brief, p. 2) by stating that "it is quite clear from the application considered as a whole that the recitation "adapted for" is intended to be a statement of intended use." The appellants assert (reply brief, p. 1) that the recitation "adapted for" is conventional and does not render the claims indefinite.

Claim 10 recites an apparatus for ashing an organic film as part of a semiconductor device production process comprising, inter alia, an evacuable plasma chamber **adapted for** conducting a plasma ashing procedure in a vacuum environment. In our view, it is quite clear that the

recitation "adapted for" is intended to express a statement of intended use. Moreover, it is our opinion that the scope of claim 10 can be determined from the language of the claim with a reasonable degree of certainty, thus a rejection of the claims under appeal under 35 U.S.C. § 112, second paragraph, is inappropriate.

**The obviousness rejections**

We will not sustain any of the rejections of claims 8 through 10 under 35 U.S.C. § 103.

Claim 10 recites an apparatus for ashing an organic film as part of a semiconductor device production process comprising, inter alia, an evacuable plasma chamber; a closed water-containing vessel; a steam outlet connected to the vessel; a conduit interconnecting the steam outlet and the plasma chamber; and a temperature-controlled liquid bath for heating and vaporizing water in the vessel to thereby supply steam to the plasma chamber.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

We have reviewed all the prior art applied by the examiner in the above-noted rejections of claims 8 through 10. It is our determination that such prior art is not suggestive of the claimed invention. That is, the applied prior art would not have made it obvious at the time the invention was made to a person having ordinary skill in the art to arrive at the claimed invention. Specially, the applied prior art does not teach or suggest "a closed water-containing vessel" heated by a liquid bath as set forth in claim 10 (the only independent claim on appeal).

The examiner takes the position that the claimed "closed water-containing vessel" is readable on Roop's pressure vessel or vapor chamber 10 or Barbee's reservoir 10. Specifically, the examiner believes that the type of liquid (i.e., water) in the claimed vessel does not limit the claim.<sup>3</sup> We do not agree. In that regard, it is our determination that a "water-containing vessel" structurally requires both a vessel and water within the vessel.<sup>4</sup> Since a "water-containing vessel" as set forth in claim 10 is not suggested or taught by the applied prior art, we find ourselves in agreement with the appellants that the claimed subject matter is not suggested by the applied prior art.

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<sup>3</sup> See the second paragraph of the supplemental answer.

<sup>4</sup> This is to say that "a water-containing vessel" is structurally different from "a vessel for containing water."

CONCLUSION

To summarize, the decision of the examiner to reject claims 8 through 10 under 35 U.S.C. § 112, second paragraph, is reversed and the decision of the examiner to reject claims 8 through 10 under 35 U.S.C. § 103 is reversed.

REVERSED

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|-----------------------------|---|-----------------|
| CHARLES E. FRANKFORT        | ) |                 |
| Administrative Patent Judge | ) |                 |
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|                             | ) | BOARD OF PATENT |
| JOHN P. McQUADE             | ) | APPEALS         |
| Administrative Patent Judge | ) | AND             |
|                             | ) | INTERFERENCES   |
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| JEFFREY V. NASE             | ) |                 |
| Administrative Patent Judge | ) |                 |

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APPEAL NO. 1997-3993 - JUDGE NASE  
APPLICATION NO. 08/462,561

APJ NASE

APJ FRANKFORT

APJ McQUADE

DECISION: **REVERSED**

Prepared By: Gloria

Henderson

**DRAFT TYPED:** 19 Jan 00

**FINAL TYPED:**

**HEARD: January 13, 2000**