

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIDEYUKI FUKUHARA
and SHIGEO ASHIGAKI

Appeal No. 1998-3074
Application 08/804,850

ON BRIEF

Before THOMAS, HAIRSTON, and GROSS, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellants have appealed to the Board from the examiner's final rejection of claims 1 through 7 and 19 through 26, which constitute all the claims in the application.

Representative claim 1 is reproduced below:

1. An integrated circuit, comprising:
 - A. a substrate of semiconductor material;
 - B. a patterned layer of polysilicon formed over and insulated from the substrate;

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C. a first patterned layer of metal formed over and insulated from the patterned layer of polysilicon;

D. a top layer of patterned metal formed over the first patterned layer of metal, at least one fuse portion of the top layer of patterned metal forming a fuse link; and

E. an oxide layer formed over at least the fuse portion of the top layer of patterned metal.

The following references are relied on by the examiner:

Simmons et al. (Simmons)	4,714,949	Dec. 22, 1987
Mizushima	5,404,045	Apr. 4, 1995 (filed Feb. 22, 1994)

Claims 1 through 7 and 19 through 26 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Simmons in view of Mizushima.

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

OPINION

We reverse the art rejection under 35 U.S.C. § 103 of claims 1 through 7. Because we introduce a rejection of claims 19 through 26 under the second paragraph of 35 U.S.C. § 112, we reverse the art rejection under 35 U.S.C. § 103 of these claims in a pro forma sense.

Our study of the applied prior art and the subject matter of claim 1 on appeal leads us to conclude that the examiner has not set forth a prima facie case of obviousness of this independent claim. To the extent the examiner relies upon both references, Simmons and Mizushima, as a basis to arrive at the subject matter within 35 U.S.C. § 103 of claim 1 on appeal, we reverse the rejection because we are unconvinced of the proper combinability within 35 U.S.C. § 103 of the teachings of both references. The examiner's position of combinability as set forth at the top of page 4 of the answer, that it would have been obvious to combine both references in order to integrate them, essentially begs the question. No persuasive rationale has been set forth by the examiner which convinces us that it would have been obvious from an artisan's point of view to have combined the teachings of Mizushima and Simmons within 35 U.S.C. § 103.

To the extent the examiner's reasoning in the remarks portion of the answer may be construed as basing the rejection on Simmons alone and, alternatively, even if the teachings and suggestions of Simmons and Mizushima would have been obviously combinable within 35 U.S.C. § 103, the subject matter of claim 1 on appeal would not have resulted. The discussion at page 5 of the answer indicates that the examiner has admittedly not provided any teaching of the applied prior art for the claimed polysilicon patterned layer of claim 1 on appeal. Even though the appellants have not argued this feature, the examiner's burden is still to prove the existence of such among the applied

prior art. More specifically, however, we agree with appellants' views generally expressed as to this rejection at pages 4 through 6 of the principal brief on appeal. Essentially, we read the Simmons and Mizushima references in the same manner as set forth by appellants at these portions of the principal brief. Simmons does form a fuse link but in a conductive layer below the top layer where claim 1 clause D requires that "at least one fuse portion of the top layer of patterned metal forming a fuse link" as a significant recitation. According to the Simmons' teaching, the fuse link 17 is buried below the top bond pad layer 23. This fuse link 17 in Simmons is formed in what amounts to the first or lowest patterned metal layer of nickel, layer 9. Moreover, Mizushima fails to teach the formation of any fuses at any layer level discussed and depicted in the figures associated with this patent. In view of these considerations, the examiner has not established a prima facie case of obviousness of the subject matter of independent claim 1 on appeal based upon the applied prior art. As such, we must also reverse the rejection of respective dependent claims 2 through 7.

Turning lastly to independent claim 19¹, under the provisions of 37 CFR

¹ The reversal of the outstanding art rejection under 35 U.S.C. § 103 of claims 19 through 26 should not necessarily be construed as a reversal of the rejection of these claims on the merits. As a starting point for rejections under 35 U.S.C. § 103, we note in passing that the admitted prior art associated with figures 1a, 1b, 2a and 2b would appear
(continued...)

§ 1.196(b), we reject this claim and its respective dependent claims 20 through 26 under the second paragraph of 35 U.S.C. § 112, because there is a fatal indefiniteness feature in claim 19. The claimed “a layer of patterned metal” clause includes a recitation pertaining to the formation of “at least one fuse link portion of the top layer of patterned metal forming a fuse link (emphasis added).” There is no antecedent basis in this claim of a previous recitation of a top layer of patterned metal or that the claimed “a layer of patterned metal” is to comprise the recited “the top layer of patterned metal.” Thus, the claim is fatally defective as to whether it recites two such patterned metal layers, one of which is the top layer or, in the alternative, whether the claimed “a layer of patterned metal” is to be construed as the claimed top layer of patterned metal as well.

Because of this fatal indefiniteness of independent claim 19, we must reverse the rejection under 35 U.S.C. § 103 because it is not possible to properly apply the prior art relied upon to the claim that is considered to be fatally indefinite.

We will not resort to speculation and conjecture in order to discern what the subject matter of claim 19 and its dependent claims is to comprise. Note In re Steele, 305 F.2d 859,

¹(...continued)

to be more pertinent or as pertinent as the subject matter of Simmons along with the associated discussions in the related art topic beginning at page 1 of the specification and the specific portion of the specification discussing these respective figures.

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862, 134 USPQ 292, 295 (CCPA 1962). Note also In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

In summary, we have reversed the art rejection of all claims on appeal, claims 1 through 7 and 19 through 26, under 35 U.S.C. § 103, claims 1 through 7 on the merits and claims 19 through 26 in a pro forma manner. We have also instituted a rejection of claims 19 through 26 under the second paragraph of 35 U.S.C. § 112. As such, the decision of the examiner is reversed.

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellants, 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 (§ 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 reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

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

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED; 37 CFR § 1.196(b)

James D. Thomas)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
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