

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALFRED BEIER, DIETRICH DISTLER,
HELMUT WITTKE, CHRISTIAN NESSELRATH

Appeal No. 97-2605
Application 08/272,782¹

HEARD: JUNE 9, 1998

Before STAAB, McQUADE and CRAWFORD, Administrative Patent Judges.
McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

This appeal is from the final rejection of claims 5, 8 and 9. Claim 10, which has been indicated as reciting allowable subject matter, presumably stands objected to as depending from a rejected base claim. Claims 6 and 7, the only other claims

¹ Application for patent filed July 8, 1994.

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pending in the application, stand withdrawn from consideration pursuant to 37 CFR § 1.142(b).

The invention relates to "cam arrangements of the type used, for example, to control the intake and exhaust valves of internal combustion engines" (specification, page 1). Claim 8 is illustrative of the subject matter on appeal and reads as follows:

8. A cam arrangement having a cam profile surface comprising a plurality of punched layers of flat sheet stock assembled in aligned and laterally adjacent relation and providing a camshaft opening, and fastening means for joining the layers together at a location outside the cam profile surface wherein the fastening means comprises at least one weld joint adjacent to the camshaft opening.

The references relied upon by the examiner as evidence of obviousness are:^{2,3}

² English language translations of these references, prepared on behalf of the Patent and Trademark Office, are appended hereto.

³ Although the examiner refers to U.S. Patent No. 5,053,610 to Landtwing et al. in the main answer (Paper No. 13, see pages 4 and 7) to support his position, this patent has not been included in the statement of either of the rejections on appeal. Where a reference is relied on to support a rejection, whether or not in a minor capacity, there is no excuse for not positively including the reference in the statement of the rejection. In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970). Accordingly, we have not considered the teachings of Landtwing et al. in reviewing the merits of the examiner's rejections.

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Morishima (Japanese '291) (Japanese Patent Document)	61-129291	Jun. 17, 1986
Tanida et al. (Japanese '651) (Japanese Patent Document)	3-181651	Aug. 7, 1991
Hanakawa et al. (Japanese '654) (Japanese Patent Document)	3-181654	Aug. 7, 1991
Shibata et al. (Japanese '655) (Japanese Patent Document)	3-181655	Aug. 7, 1991

Claims 5, 8 and 9 stand rejected under 35 U.S.C. § 103:

a) as being unpatentable over the Japanese '291 reference;
and

b) as being unpatentable over the Japanese '291 reference in
view of any one of the Japanese '651, '654 or '655 references.

Reference is made to the appellants' main and reply briefs
(Paper Nos. 12 and 19) and to the examiner's final rejection,
main answer and supplemental answer (Paper Nos. 8, 13 and 20) for
the respective positions of the appellants and the examiner with
regard to the merits of these rejections.

The Japanese '291 reference discloses a cam 9 having a
camshaft opening 14. The cam consists of a plurality of laser
cut plates or layers 1 joined in aligned and laterally adjacent
relation to one another by rivets or bolts 8. The examiner
acknowledges that this cam does not meet the limitation in
independent claim 8 requiring the fastening means for joining the

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layers together to comprise at least one weld joint adjacent to the camshaft opening (see pages 4 and 5 in the final rejection).

The Japanese '651, '654 and '655 references disclose one-piece cams which are affixed to their respective camshafts by one or more weld joints adjacent the camshaft openings in the cams.

With regard to the 35 U.S.C. § 103 rejection based on the Japanese '291 reference alone, the examiner states that

[i]t is common knowledge in the art to use welding in order to join the layers together. The use of welding to join the layers together is notoriously well known.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use [a] weld joint in order to [join] the layers of [the Japanese '291 reference] together as suggested by common knowledge in the art [final rejection, page 4].

This rejection is unsound because the examiner has failed to advance any factual basis for his finding that it is common knowledge or notoriously well known in the art to use welding to join the layers of a cam together. Rejections based on 35 U.S.C. § 103 must rest on a factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967). In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded

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assumptions or hindsight reconstruction to supply deficiencies in the factual basis. Id. Here, the examiner has improperly relied on speculation and unfounded assumption, rather than facts, to supply the acknowledged deficiency in the Japanese '291 reference with respect to the subject matter recited in claim 8.

Accordingly, we shall not sustain the 35 U.S.C. § 103 rejection of this claim, or of claims 5 and 9 which depend therefrom, as being unpatentable over the Japanese '291 reference.

As for the 35 U.S.C. § 103 rejection based on the Japanese '291 reference in view of any one of the Japanese '651, '654 or '655 references, the examiner states that

[the Japanese '651, '654 or '655 reference] teaches at least one weld joint adjacent the camshaft opening in order to join the cam to [the] shaft.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least one weld joint adjacent the camshaft opening in order to [join] the cam layers of the [Japanese '291 reference] as suggested by [the Japanese '651, '654 or '655 reference] [final rejection, pages 5 and 6].

The problem here, however, is that none of the Japanese '651, '654 or '655 references supports the examiner's conclusion. As indicated above, these secondary references teach the use of weld joints to affix one-piece cams to their camshafts. Such teachings would not have provided the artisan with any suggestion

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or motivation to join the Japanese '291 cam layers together with at least one weld joint adjacent the camshaft opening as recited in claim 8. The examiner's conclusion to the contrary is predicated on an impermissible hindsight reconstruction of the claimed invention wherein the claims have been used as an instruction manual to selectively piece together disparate disclosures in the prior art. Thus, we shall not sustain the 35 U.S.C. § 103 rejection of claim 8, or of claims 5 and 9 which depend therefrom, as being unpatentable over the Japanese '291 reference in view of any one of the Japanese '651, '654 or '655 references.

The decision of the examiner is reversed.

REVERSED

LAWRENCE J. STAAB)	
Administrative Patent Judge)	
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JOHN P. McQUADE)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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)	
MURRIEL E. CRAWFORD)	
Administrative Patent Judge)	

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