

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte MILTON C. SHAW and AMITABH VYAS

Appeal No. 2003-1657
Application No. 09/554,319

ON BRIEF

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

DECISION ON APPEAL

This is a decision on appeal from the examiner's non-final rejection (Paper No. 10, mailed September 10, 2002) of claims 2 to 5, 7 to 9, 12, 13, 15, 16, 18 to 23, 25, 26, 29, 30 and 35. Claims 6, 10, 11, 17, 24, 27, 28 and 31, the only other claims pending in this application, have been objected to as depending from a non-allowed claim.

We REVERSE.

BACKGROUND

The appellants' invention relates to a method and apparatus for hard machining a hardened workpiece (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

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

Rescigno	5,346,336	Sep. 13, 1994
Bailey	5,761,976	June 9, 1998

The appellants' admission of prior art (Figures 1-3; specification, pages 4-5¹) relating to a conventional hard turning operation (Admitted Prior Art).

Claims 2 to 5, 7 to 9, 12, 13, 15, 16, 18 to 23, 25, 26, 29, 30 and 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Admitted Prior Art in view of Bailey.

¹ In the non-final rejection (Paper No. 10), the examiner incorrectly referred to pages 1 and 2 of the specification for the discussion of the Admitted Prior Art.

Claims 2 to 5, 7 to 9, 12, 13, 15, 16, 18 to 23, 25, 26, 29, 30 and 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Admitted Prior Art in view of Rescigno.²

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the non-final rejection and the answer (Paper No. 13, mailed January 28, 2003) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 12, filed December 13, 2002) 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. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of

² Claims 2 to 4 were included in this ground of rejection in the answer (p. 3) but were not included in this ground of rejection in the non-final rejection (p. 4).

claims 2 to 5, 7 to 9, 12, 13, 15, 16, 18 to 23, 25, 26, 29, 30 and 35 under 35 U.S.C.

§ 103. Our reasoning for this determination follows.

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).

In the two rejections under 35 U.S.C. § 103 before us in this appeal, the examiner concluded (non-final Office action, pp. 3 and 5) that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method and apparatus of the Admitted Prior Art with an indexing or rotating cutting edge as taught by either Bailey to avoid the stoppage of operation to change or replace the dull cutting edge or Rescigno to present a fresh portion of cutting edge for cutting and to avoid the slippage of the insert.

The appellants argue that the applied prior art does not suggest the claimed subject matter. We agree. In our view, the combined teachings of the Admitted Prior Art and either Bailey or Rescigno would have taught a person of ordinary skill in the art, at the time the invention was made, to have indexed the tool 11 of the Admitted Prior Art to have presented a new portion of the cutting edge at both the location of comparatively coarse cutting and the location of finishing cutting. Accordingly, the combined teachings of the applied prior art would not have led one of ordinary skill in the art to combine the relevant teachings of the applied prior art to arrive at the claimed invention. In that regard, the applied prior art is not suggestive of (1) the step of moving the cutting edge sufficiently to replace the cutting edge in the location of finishing cutting with the fresh portion of cutting edge and to move the cutting edge that has been in the location of finishing cutting into engagement with the workpiece in the location of comparatively coarse cutting as set forth in claims 2 to 5, 7 to 9 and 12; (2) the step of effecting angular movement of the cutting tool in a direction to replace with a new cutting edge portion a part of the cutting edge portion in contact with the rotating workpiece in substantially only a location of tool engagement affecting the finish of the machined workpiece as set forth in claims 13, 15 and 16; (3) a drive to move the cutting edge of the tool along the path of translation sufficiently to move a fresh, unworn portion of cutting edge to replace a wearing finish cutting part of the cutting portion of the cutting edge and to move the wearing finish cutting part of the cutting portion into

the rough cutting location as set forth in claims 18 to 23, 29 and 30; and (4) an angular drive providing translational movement of the tool to replace the cutting edge of the tool with a fresh, unworn portion of cutting edge in the finishing cut portion of the line of engagement and to move the used finishing cut portion into the location of the coarse cutting portion as set forth in claims 25, 26, and 35.

Since the subject matter of claims 2 to 5, 7 to 9, 12, 13, 15, 16, 18 to 23, 25, 26, 29, 30 and 35 is not suggested by the combined teachings of the applied prior art for the reasons set forth above, the decision of the examiner to reject claims 2 to 5, 7 to 9, 12, 13, 15, 16, 18 to 23, 25, 26, 29, 30 and 35 under 35 U.S.C. § 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 2 to 5, 7 to 9, 12, 13, 15, 16, 18 to 23, 25, 26, 29, 30 and 35 under 35 U.S.C. § 103 is reversed.

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

REVERSED

LAWRENCE J. STAAB)	
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)	
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