

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRITZ-PETER PLESCHIUTSCHNIGG

Appeal No. 2002-1447
Application 09/167,776

ON BRIEF

Before PAK, OWENS and POTEATE, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from the final rejection of claims 1-8, which are all of the claims in the application.

THE INVENTION

The appellant claims a process and an apparatus for continuously casting thin slabs. Claim 5, directed toward the apparatus, is illustrative:

5. A continuous casting installation for producing thin slabs, comprising:

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an oscillating rectangular mold having a concave inner contour with a mold inlet having a mold inlet contour and a mold outlet having a mold outlet contour, wherein said mold inlet contour is larger than said mold outlet contour;

means for oscillating the mold, the oscillating means being adjustable relative to frequency, stroke and mode of oscillation;

an immersion nozzle having a cross sectional area that is less than 1/50 of a strand cross sectional area at the outlet of the mold, the immersion nozzle being arranged to project into the rectangular mold;

casting powder feed means for supplying powder to the mold as a function of the stroke, mode and frequency of oscillation of the mold so that a height of a slag layer proximate the upper surface of said mold is greater than or equal to a height of a portion of a strand shell which penetrates the slag layer during oscillation of the mold; and

a cluster roll strand arranged downstream of the rectangular mold and including two rolls adjustably arranged at a distance from and opposite one another, and a hydraulic arrangement operatively arranged to change the distance between the rolls in a continuous manner.

THE REFERENCE

Ehrenberg et al., "Gießen und Gießwalzen dünner Brammen bei der Mannesmannröhren-Werke AG", 109 *Stahl u. Eisen* 453-62 (Dusseldorf, DE, 1989) (Stahl).¹

¹ Our consideration of Stahl is based upon the English translation thereof which is of record.

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THE REJECTION

Claims 1-8 stand rejected as follows: under 35 U.S.C. § 112, first paragraph, written description requirement, and under 35 U.S.C. § 103 as being unpatentable over Stahl.²

OPINION

We reverse the aforementioned rejections.

Rejection under 35 U.S.C. § 112, first paragraph

A specification complies with the 35 U.S.C. § 112, first paragraph, written description requirement if it conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, the inventor was in possession of the invention. See *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991).

The examiner argues that it is not clear in view of the appellant's specification 1) what method step is performed to prevent flaws, 2) how technical effort and handicap are related, 3) what "technical effort value" means, 4) what "the external

² The appellant has submitted a terminal disclaimer (filed May 24, 2000, paper no. 8) to overcome a provisional obviousness-type double patenting rejection (office action mailed December 22, 1999, paper no. 5, page 5) over copending application no. 09/157,477, now U.S. 6,321,828 to Pleschiutschnigg, but this terminal disclaimer has not yet been entered on the face of the file.

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area of strand produced per minute increases by 4 and the bath surface area decreases by 1/4" means, and 4) what information the appellant wants to disclose in the specification with respect to figures 2-4 (final rejection mailed June 28, 2000, paper no. 9, pages 2-3).

The examiner, however, has not explained why, even if the appellant's specification has the deficiencies alleged by the examiner, the specification fails to convey with reasonable clarity to those skilled in the art that, as of the filing date sought, the inventor was in possession of the claimed invention.

The examiner's rationale is directed toward the issue of enablement rather than written description. A specification complies with the 35 U.S.C. § 112, first paragraph, enablement requirement if it allows those of ordinary skill in the art to make and use the claimed invention without undue experimentation. See *In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). The examiner, however, has not explained why, even if the appellant's specification has the deficiencies alleged by the examiner, the specification would have failed to enable those of ordinary skill in the art to make and use the claimed invention without undue experimentation.

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For the above reasons we reverse the rejection under 35 U.S.C. § 112, first paragraph.

Rejection under 35 U.S.C. § 103

We need to address only the independent claims, i.e., claims 1 and 5.

The appellants argue that Stahl does not teach or suggest "supplying casting powder to the molten metal so that a relationship $h_{\text{slag}} \geq h_{\text{strand shell}}$... is maintained" as recited in claim 1, or "means for supplying powder to the mold as a function of the stroke, mode, and frequency of oscillation of the mold so that a height of a slag layer proximate the upper surface of said mold is greater than or equal to a height of a portion of a strand shell which penetrates the slag layer during oscillation of the mold" as recited in claim 5 (brief, page 12).

The examiner does not point out where Stahl discloses or would have fairly suggested, to one of ordinary skill in the art, these limitations or any other limitation of the appellant's claims. The examiner merely asserts that "Stahl et al substantially show the invention as claimed except the powder dispensing means", and asserts that a powder dispensing device is conventional for lubricating the interface between a mold and a

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solidified shell (final rejection mailed June 28, 2000, paper no. 9, pages 3-4).

As for the appellant's claim requirement that the casting powder is supplied such that the height of the slag layer proximate the upper surface of the mold is greater than or equal to a height of a portion of a strand shell which penetrates the slag layer during oscillation of the mold, the examiner argues (answer, page 5):

Since Stahl discloses the slag layer as acknowledged by appellants [sic], it is apparent that a powder dispensing means must have [sic] been provided in order to dispense the powder and form a slag layer on top of the molten metal surface. Further, since [sic] the purpose of providing a slag layer is (1) to lubricate the interface between the mold and the solidified shell in the continuous casting process and thereby to obtain a cast strand with better surface quality; and (2) to cover the molten metal surface within the continuous casting mold such that to prevent the molten metal from oxidizing. Therefore, it would have been obvious to those of ordinary skill in the casting art that the height of the slag layer must be maintained higher than that of strand shell such that to prevent the same from oxidizing.

The examiner has not provided evidence that the purposes of Stahl's slag layer are those alleged by the examiner.

Regardless, even if the examiner is correct in this regard, the examiner has not provided evidence that, in prior art thin slab casting, the strand shell was known to protrude through the slag

layer. If the shell strand protruded through the slag layer but those of ordinary skill in the art were not aware of this problem, it is not apparent how those of ordinary skill in the art would have been led by Stahl to the appellant's solution.³

The only motivation relied upon by the examiner for modifying Stahl so as to arrive at the appellant's claimed invention comes from the appellant's disclosure of his invention rather than from the applied prior art. Consequently, the examiner used impermissible hindsight when rejecting the claims. See *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); *In re Rothermel*, 276 F.2d 393, 396, 125 USPQ 328, 331 (CCPA 1960). Accordingly, we reverse the examiner's rejection under 35 U.S.C. § 103.

³If there was no prior art problem, i.e., if the prior art strand shells never protruded through the slag layer, then Stahl necessarily meets the appellant's claim requirement that the slag layer height is greater than or equal to the height of strand shell penetration into the slag layer. The lack of a prior art problem, however, has not been established by the examiner.

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DECISION

The rejections of claims 1-8 under 35 U.S.C. § 112, first paragraph, written description requirement, and under 35 U.S.C. § 103 over Stahl, are reversed.

REVERSED

CHUNG K. PAK)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
TERRY J. OWENS)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
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LINDA R. POTEATE)	
Administrative Patent Judge)	

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