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. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte MEINERT MEYER, KLAUS KUPPERS, MANFRED ALBEDYHL
and BRUNO BOHMER

_____

Appeal No. 2003-0764
Application No. 09/660,797

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ON BRIEF

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Before WALTZ, TIMM, and PAWLIKOWSKI, Administrative Patent Judges.
WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the primary examiner's final rejection of claims 1 and 8 through 10, which are the only claims remaining in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellants, the invention is directed to a method of cooling a steel section from rolling heat, where the section has different section parts of different masses located at a distance from each other over a cross-section of the section (Brief, page 3). The method comprises subjecting the steel section with the

head facing downwardly and the base facing upwardly to a series of defined immersion procedures of a very short duration in a trough filled with water, while determining and computing heat quantities to be proportionally removed from the different section parts and the quantity of cooling medium required for removing the heat (*id.*). A further understanding of the invention may be gleaned from independent claim 1, a copy of which is attached as an Appendix to this decision.

In addition to the admitted prior art found in appellants' specification (pages 2-7),[1] the examiner relies upon Ackert et al. (Ackert), U.S. Patent No. 4,486,248, issued Dec. 4, 1984, as evidence of obviousness. Accordingly, the claims on appeal stand rejected under 35 U.S.C. § 103(a) as unpatentable over the admitted prior art found in appellants' specification in view of Ackert

[1]The examiner lists "[t]he admitted prior art of the instant disclosure, pages 2-7 of the specification" under "Prior Art of Record" (Answer, pages 2-3, ¶(9); see also Answer, page 3, line 1). The examiner also states that the admitted prior art is relied upon "as expressed on pages 3-6 of the specification for example" (Answer, page 3, ¶(10)). For purposes of this appeal, we consider these statements to be equivalent since pages 2-7 of appellants' specification contain the section "Description of the Related Art" while the prior art references are actually discussed on pages 3-7 of appellants' specification.

(Answer, page 3). We *reverse* the examiner's rejection essentially for the reasons stated in the Brief and those reasons set forth below.

OPINION

The examiner finds that the admitted prior art, as expressed on pages 3-6 of the specification, teaches a method of cooling steel rail stock, including the use of short duration immersion steps for cooling steel sections with a head section facing downwardly and a base section facing upwardly, with different cooling rates employed for the different sections (Answer, page 3). Therefore the examiner finds that the admitted prior art shows "all aspects of the above claims except the use of controlling the cooling process with a computer." *Id.*

The examiner finds that Ackert teaches that it was known in the rail heat treatment art "to employ computer controlled cooling and regulation steps to monitor and regulate the cooling parameters of a cooled workpiece." From these findings, the examiner concludes that it would have been obvious to employ the automated computer controlled cooling and regulation steps of Ackert in the systems of the admitted prior art in order to improve and automate the cooling system (*id.*, citing *In re Venner*, 120 USPQ 193, for the

holding that it would have been an obvious expedient to automate that which has been done manually).

Appellants argue that Ackert does not compute heat quantities to be removed by cooling for the individual section parts but rather only at the beginning and end of the cooling system (Brief, page 7). We agree.

The examiner construes the claims as not containing any requirement that each individual section part "be measured and computed individually, only that measurement equipment and a computer program be employed." Answer, page 4. The examiner finds that Ackert "clearly describes determining the cooling profile to be employed for each section of the rail to be cooled (*id.*, citing col. 8, ll. 22-29). The examiner reiterates that "[t]he appealed claims do not limit the method to any particular process of computing or determining the cooling profiles other than the [sic, to] require that measuring equipment and a computer program be employed" (*id.*). We disagree.

We determine that claim 1 on appeal clearly requires "determining and computing heat quantities to be proportionally removed from the *different section parts* in dependence on the masses and temperatures thereof" (claim 1 on appeal, emphasis added). The different section parts include the head, web and base

(specification, page 11, ll. 5-7). We also determine that the examiner's finding from Ackert (col. 8, ll. 22-29) is not based on factual support from this reference. Ackert teaches that the temperature of each "segment" of incoming rail is sensed so that the correct number of cooling headers may be used to cool each "segment" of rail to the desired temperature (col. 8, ll. 22-29). However, the "segment" Ackert refers to is clearly a segment of length, not cross-section as determined and computed for the different section parts of the appealed claim. See Ackert, the abstract, where each "segment of the rail length" is subjected to cooling; col. 6, ll. 57-63, where the computer-based control system monitors the temperature variations "within the length of any particular rail"; and col. 7, l. 49-col. 8, l. 10, where Ackert exemplifies the computer-based control system showing only temperature monitoring devices for the entry and exit end of the cooling apparatus. Although Ackert teaches implantation of thermocouples 1 mm, 10 mm, and 20 mm below the running surface of a rail section, these temperature sensing devices are only sensing the temperature of the rail head (col. 5, ll. 40-55). Therefore we determine that Ackert does not disclose or suggest the claimed limitations discussed above.

The examiner has also not pointed to any admitted prior art as found in appellants' specification to support his finding that "different cooling rates are employed for the different sections" (Answer, page 3), assuming that these "sections" are equivalent to the cross-sectional "section parts" of the claimed subject matter.

For the foregoing reasons and those set forth in the Brief, we determine that the examiner has not set forth sufficient factual support to establish a *prima facie* case of obviousness. *See In re Warner,* 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967)(where the legal conclusion of obviousness is not supported by facts it cannot stand). Accordingly, we reverse the examiner's rejection of the claims on appeal under 35 U.S.C. § 103(a) over the admitted prior art as found on pages 2-7 of appellants' specification in view of Ackert.

The decision of the examiner is reversed.

REVERSED

THOMAS A. WALTZ Administrative Patent Judge	)	
CATHERINE TIMM Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
BEVERLY A. PAWLIKOWSKI Administrative Patent Judge	)	

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APPENDIX

1. A method of cooling a steel section from rolling heat, wherein the section has different section parts of different masses located at a distance from each other over a cross-section of the section, the method comprising initially determining and computing heat quantities to be proportionally removed from the different section parts in dependence on the masses and temperatures thereof and a quantity of cooling medium required for removing the heat by using measuring equipment together with a computing unit by means of a computer program, and subsequently carrying out cooling of the different section parts in a controlled manner such that the different section parts reach with as little time delay as possible the transformation line A_{r3}/A_{r1} during the decomposition of the gamma-mixed crystal into ferrite and/or pearlite while releasing the transformation heat.