

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

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAKE ZWART and DEREK A. TWITCHEN

Appeal No. 1998-0837
Application No. 08/516,752

ON BRIEF

Before ABRAMS, STAAB, and LAZARUS, Administrative Patent Judges.

LAZARUS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-2, 4-7, 9-12 and 14-16, which are all of the claims pending in this application.

We Reverse

BACKGROUND

The appellants' invention relates to a method and apparatus for reducing heat loss in the calendering section of a paper making machine (specification, p. 1). A copy of the

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claims under

appeal is set forth in the appendix to the appellants' brief.

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

Munari	4,274,915	Jun. 23, 1981
Verkasalo	4,653,395	Mar. 31,
1987		

MacDonald et al. (MacDonald) "Papermaking and Paperboard Making", Pulp and Paper Manufacture, 2d ed., Vol. III, published 1970 by McGraw-Hill (NY) pages 456, 460-463 and 564-568, (copy in U.S. Patent and Trademark Office Scientific Library since July 25,1972)

Claims 1-2, 4-7, 9-12 and 14-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over applicants' admission of prior art or MacDonald in view of Verkasalo and Munari.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 12, mailed October 16, 1997) for the examiner's complete reasoning in support of the rejection, and to the appellants'

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brief (Paper No. 10, filed September 18, 1997) 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. As a consequence of our review, we make the determinations which follow.

We cannot sustain the examiner's rejection of appellants' claims 1-2, 4-7, 9-12 and 14-16 under 35 U.S.C. § 103(a).

At the outset, we particularly note that independent claims 1 and 10 are drawn to a paper machine and a method of reducing heat loss in a paper machine.

Claims 1 and 10 recite,

1. In a paper machine having a dryer section and a calender section for a paper sheet to pass therebetween during manufacture, a calender hood comprising a substantially air impervious barrier located near the paper sheet, continuously and uninterruptedly extending from the dryer section to the calender section and containing at least a

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portion of the calender section to restrict movement of the ambient air into the region between the calender hood and a surface of the paper sheet during passage of said paper sheet from the drying section to the calender section.

10. A method of reducing heat loss from a paper sheet in a paper machine having a dryer section and a calender section for a paper sheet to pass therebetween during manufacture, the method comprising positioning a substantially air impervious barrier as a calender hood near the paper sheet, continuously and uninterruptedly extending from the dryer section to the calender section and containing at least a portion of the

calender section to restrict movement of the ambient air into the region between the calender hood and a surface of the paper sheet during passage of said paper sheet between said dryer section and said calender section.

The examiner's rejection of claims 1 and 10 points out that "[p]aper machines with a dryer section immediately followed by a calendar stack section are conventional, as is a dryer hood for the dryer section, as admitted by applicants and exemplified on pages 456, 460-463, 564-568 of MacDonald et al. Note page 568 of MacDonald et al states 'The calendar stack immediately following the dryers...'" (answer, page 3). The examiner goes on to state that "Verkasalo teaches a

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calendar stack with heated rolls... having insulation elements... in effect a calendar hood" and "it would have been prima facie obvious to use a calendar hood as claimed for the obvious advantages of conserving heat and not exposing the paper to ambient temperature, especially when the calendar contains heated rolls which is now a well known conventional option in calendaring a paper web to use heated rolls, as exemplified by Verkasalo and is even admitted on page 4, lines 1-15 of the instant application... [f]urthermore, Munari is cited as conceptually showing extending a dryer hood 9 over

the paper web path at 7 up to the calendar stack in order to keep a particular paper web heated right up to the calendar stack" (answer, pages 3-4).

Appellants counter that in Verkasalo "[t]he insulation elements, however, do not extend from the dryer hood, let alone in a continuous and uninterrupted manner... [t]he Verkasalo insulation and heating elements are representative of the prior art short-comings discussed in Applicants'

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disclosure, since exposure to ambient air is still present during the passage of the paper from the dryer section to the calender section, and still further from the top roller to the bottom roller" (brief, page 5).

We note appellants' disclosure that "[c]alender rolls were originally heated...[t]here are several practical limitations to the use of heated calender rolls... [t]he temperature of the paper sheet reaches a maximum in the dryer section of the paper machine, where heat is applied, and decreases thereafter due to convection and thermal losses to the ambient air... [t]he heat losses, and consequent temperature drop, in the paper sheet can be dramatic and the temperature drop, for example, between the

dryer section and the calender section, or between two calender stacks, can be more than 20°C, high enough that it is difficult to replace the heat through heating of the calender rolls" (specification, page 4).

Rejections based on 35 U.S.C. § 103(a) must rest on a

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factual basis. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). 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 assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *Id.*

In the present case, the examiner has failed to advance any factual basis to support the conclusion that it would have been obvious to one of ordinary skill in the art to modify applicants' admission of prior art or MacDonald in the manner proposed. The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. See In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Neither applicants' admission of prior art nor MacDonald contain such suggestion. Similarly, Verkasalo and Munari do not disclose "a calender hood comprising a substantially air impervious barrier located near the paper

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sheet, continuously and uninterruptedly extending from the dryer section to the calender section and containing at least a portion of the calender section" (claim 1) or the step of "positioning a substantially air impervious barrier as a calender hood near the paper sheet, continuously and uninterruptedly extending from the dryer section to the calender section and containing at least a portion of the calender section" (claim 10). The dryer hood which extends up to the calender stack in Munari and Verkasalo's insulating elements are not suggestive of the use of a hood connecting the dryer and calender sections as claimed in appellants' claims 1 and 10 on appeal.

Accordingly, we will not sustain the standing 35 U.S.C. § 103(a) rejection of claims 1 and 10, or of claims 2, 4-7, 9, 11-12 and 14-16 which depend therefrom, as being unpatentable over applicants' admission of prior art or MacDonald in view of Verkasalo and Munari.

CONCLUSION

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To summarize, the decision of the examiner to reject claims 1-2, 4-7, 9-12 and 14-16 under 35 U.S.C. § 103(a) is reversed.

REVERSED

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LAWRENCE J. STAAB)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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)	
RICHARD B. LAZARUS)	
Administrative Patent Judge)	

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