

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANCOIS DESPREZ, JOHAN DEVENYNS, NICHOLAS TROUGHTON
and PAUL ESSEMAEKER

Appeal No. 1997-0090
Application No. 08/083,183

HEARD: February 10, 2000

Before KIMLIN, JOHN D. SMITH, and GARRIS, Administrative
Patent Judges.

JOHN D. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal pursuant to 35 U.S.C. § 134 from the final rejection of claims 1-13.

Appealed claims 1 and 6 are representative and are reproduced below:

1. A process for bleaching a chemical paper pulp to obtain levels of brightness of at least 89E ISO, comprising:

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subjecting a chemical paper pulp to a sequence of treatment steps including purification prior to a final stage so that its manganese content does not exceed 3 ppm by weight with respect to the solids, and delignification prior to a final stage to a kappa number (measured according to the SCAN standard C1-59) not exceeding 5, said sequence of treatment stages thereafter including a final stage with hydrogen peroxide in an alkaline medium, said final stage with hydrogen peroxide carried out in the presence of at least one stabilising agent, at a consistency of at least 25% by weight of solids.

6. The process according to claim 1, wherein the bleaching is carried out in a treatment sequence consisting of, other than intermediate stages with a wash composed of water, a four-stage treatment sequence selected from the group consisting of **O C/D Ep, P, O D Ep P, Q Paa Ep P, and Q C_A Ep P,**

wherein:

O stands for a stage with gaseous oxygen under pressure,

D stands for a stage with chlorine dioxide,

C/D stands for a stage with chlorine and with chlorine dioxide applied as a mixture,

E_p [sic. **Ep**] stands for a stage of alkaline extraction in the presence of hydrogen peroxide,

P stands for a stage with hydrogen peroxide in an alkaline medium,

C_A stands for a stage with peroxomonosulfuric acid or one of its salts,

Paa stands for a stage with peracetic acid, and

Q stands for a stage with an acid or a sequestering acid.

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The references of record relied upon by the examiner are:

Whiting et al. (Whiting)	4,938,842	July 3, 1990
Prough	4,946,556	Aug. 7, 1990
Peter et al. (Peter)	5,145,557	Sept. 8, 1992
Lundgren et al. (Lundgren)	0,402,335	Dec. 12, 1990
(European Patent Application)		

The appealed claims stand rejected under 35 U.S.C. § 103 as unpatentable over Lundgren¹ and Peter "with or without" Prough or Whiting. The appealed claims also stand rejected under the same section of the statute over "ADMITTED PRIOR ART (Brief, page 8, lines 9-17)" in view of Whiting "with or without Prough". See the answer at page 4.

The subject matter on appeal is directed to a process for bleaching a chemical paper pulp by a sequence of treatment steps to obtain levels of brightness of at least 89E ISO in the treated pulp which is alleged to be "not heretofore obtained by prior art processes". See the brief at page 4.

¹ In his answer at page 5, the examiner indicates that Lundgren is the "primary reference".

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To achieve the brightness levels claimed, appellants' process is said to require four conditions which must all be fulfilled (brief, page 4), specifically including, inter alia, the presence of at least one stabilizing agent in a final peroxide stage.

We agree with appellants that neither the combined teachings of the relied upon prior art references nor the "Admitted Prior Art" combination of teachings are sufficient to establish a prima facie case of obviousness for the herein claimed process. Specifically, in the record before us, the examiner has not established an adequate factual foundation to support a conclusion that a person of ordinary skill in this art would have been led to have modified either the Lundgren process or the "Admitted Prior Art" process to include a final treatment stage "with hydrogen peroxide in an alkaline medium" carried out "in the presence of at least one stabilising agent", at a consistency of at least 25% by weight of solids, as required by the appealed claims.

Appellants emphasize in their specification at page 3, line 19-23 that

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This final stage with hydrogen peroxide is carried out, in accordance with the invention, in the presence of at least one stabilising agent. The known stabilising agents of peroxygenated products are well suited.

Contrary to the examiner's assertions and implicit conclusions in the answer at page 7, the above disclosure in appellants' specification does not constitute an unequivocal admission that the use of a stabilizing agent during peroxide bleaching is well known in the art in prior art processes for bleaching chemical² paper pulp. In fact, the Lundgren reference relied upon by the examiner as his "primary reference", teaches that in processes for bleaching mechanical pulps, as opposed to chemical paper pulps, the activity of hydrogen peroxide in an alkaline bleaching stage is controlled by the addition of silicates such as the commonly used stabilizing agent, sodium silicate, and that failure to include silicate in the bleaching composition will prevent the mechanical pulp from gaining the best obtainable brightness. However, with respect to chemical pulps, Lundgren teaches that "[t]he addition of

² The technical differences between processes for bleaching "mechanical" pulps and "chemical" pulps are described in paragraphs 10-16 at pages 3-5 of the Devenyns declaration.

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silicates is avoided, since this would only increase the cost for chemicals without any positive effect and make it impossible to easily recover the waste liquors". See Lundgren at page 2, line 51 to page 3, line 4. Accordingly, inadequate motivation exists to modify the Lundgren process for bleaching chemical pulps by the addition of a silicate stabilizing agent to Lundgren's hydrogen peroxide bleaching step. That the Whiting reference corroborates Lundgren's teaching that stabilizing agents are conventionally utilized in peroxide bleaching stages for mechanical pulps adds nothing to the relevant disclosures in Lundgren regarding this issue.

The examiner further contends in the answer at pages 3 and 6 that it is well known that the presence of a chelating agent (as set forth in the specification at page 3, lines 29 and 30, chelating agents such as the salts of EDTA are stabilizing agents utilized by appellants in the claimed process) in a peroxide bleach stage acts as a stabilizing agent for the peroxide. For factual support for this proposition, the examiner refers to column 2, lines 49 and 50 of Peter. However, this portion of Peter does not relate to a peroxide bleaching stage. As appellants correctly argue in

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their brief at page 9, Peter's process does not employ stabilizers in any hydroxide bleaching stage.

With respect to the examiner's stated rejection of the appealed claims based on "Admitted Prior Art", appellants point out that it is only the bleaching sequences per se set forth in appealed dependent claims 6 and 9 that are known in the art. However, the claimed inventive process must be considered as a whole, i.e., as requiring, inter alia, a final hydrogen peroxide stage carried out in the presence of at least one stabilizing agent. As stated above, there is inadequate factual support in this record for this claimed feature. Accordingly, the examiner's stated rejections of the appealed claims cannot be sustained.

The decision of the examiner is reversed.

REVERSED

EDWARD C. KIMLIN)
Administrative Patent Judge)
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)	BOARD OF PATENT
JOHN D. SMITH)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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BRADLEY R. GARRIS)	
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APJ JOHN D. SMITH

APJ KIMLIN

APJ GARRIS

DECISION: REVERSED
Send Reference(s): Yes No
or Translation (s)
Panel Change: Yes No
Index Sheet-2901 Rejection(s):

Prepared: May 9, 2001

Draft Final

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OB/HD GAU

PALM / ACTS 2 / BOOK
DISK (FOIA) / REPORT