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BOARD OF PATENT APPEALS
AND INTERFERENCES

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KAJ HENRICSON
and BRIAN GREENWOOD

Appeal No. 94-2155
Application 07/935,334¹

ON BRIEF

Before COHEN, LYDDANE and FRANKFORT Administrative Patent Judges.
COHEN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 26 through 44, all of the claims remaining in the application.

¹ Application for patent filed August 27, 1992, which is, according to appellants, a continuation of Application 07/721,958, filed June 27, 1991, now abandoned.

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Appellants' invention relates to a method of bleaching medium consistency cellulose pulp with ozone as the bleaching agent.

A basic understanding of the invention can be derived from a reading of exemplary claim 26, a copy of which is appended to this opinion.

As evidence of obviousness, the examiner has relied upon the references listed below:

Fritzvold	4,278,496	July 14, 1981
Kido et al. (Kido)	5,034,095	July 23, 1991 (filed Jan. 16, 1990)
Voitto et al. (Voitto)	5,106,456	Apr. 21, 1992 (filed Dec. 30, 1988)
Ruckl et al. (Ruckl) (published European Patent Application)	0 426 652 A1	May 8, 1991

The following rejections are before us for review.

Claims 26 through 37 and 39 through 44 stand rejected under 35 USC 103 as being unpatentable over Ruckl in view of admitted prior art, Fritzvold, and Voitto.

Claim 38 stands rejected under 35 USC 103 as being unpatentable over Ruckl in view of admitted prior art, Fritzvold, and Voitto, as applied to claim 26 above, further in view of Kido.

Claims 26 and 39 stand rejected under 35 USC 112, first paragraph, as lacking support in the original disclosure (description requirement).

The full text of the examiner's rejections and response to the argument presented by appellants appears in the main and supplemental answers (Paper Nos. 18 and 20), while the complete statement of appellants' argument can be found in the main (pages 3 through 14) and reply briefs (Paper Nos. 17 and 19).

OPINION

In reaching our conclusion on the issues raised in this appeal, this panel of the board has carefully considered appellants' specification and claims,² the applied references,³ and the respective viewpoints of appellants and the examiner. As a consequence of our review, we make the determinations which follow.

² We note that method claim 39, following the claim preamble, includes the language "consisting essentially of" relative to the steps of the method. The inclusion of such language in a method claim is discussed in Ex parte Hoffman, 12 USPQ2d 1061 (BPAI 1989).

³ In our evaluation of the applied references, we have considered all of the disclosure of each reference for what it would have fairly taught one of ordinary skill in the art. See In re Boe, 355 F.2d 961, 148 USPQ 507 (CCPA 1966). Additionally, this panel of the board has taken into account not only the specific teachings of each reference, but also the inferences which one skilled in the art would reasonably have been expected to draw from the disclosure. See In re Preda 401 F.2d 825, 159 USPQ 342 (CCPA 1968).

The obviousness issues

We do not sustain the examiner's respective rejections of appellants' claims under 35 USC 103. Our reasons in support of this determination appear below.

At the outset, we note that appellants point out (main brief, page 5) that the examiner's first obviousness rejection applies four references. The criterion, however, is not the number of references, but what they would have meant to a person of ordinary skill in the field of the invention. See In re Gorman, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

We turn now to the specific evidence of obviousness relied upon.

The admitted or acknowledged prior art (specification, page 8), as discussed by appellants (main brief, page 7), simply evidences that, at the time of the present invention, a fluidizing device or discharger 26 was a known entity.

The Ruckl reference (the European Patent Application) discloses (translation, pages 7 thorough 9, 20, and 26), a bleaching process wherein medium consistency pulp (pulp consistency of 3 to 20%) is bleached with ozone, followed by further treatment (peroxide).

Appellants understand the Ruckl reference to call for a throttling valve 6 for reducing pressure in the pulp (main brief, page 5). However, as appreciated by appellants (main brief, page

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8), a reading of the translation of this document (page 11) clearly reveals that Ruckl contemplated an ozone bleaching process without a throttling valve whereby, of course, no pressure reduction would obtain.

Appellants also present the view that no teaching is seen of adding anything to the pulp in the Ruckl process except for dilution water at 12 (main brief, page 5). However, the translation (pages 9, 20, and 26) expressly indicates otherwise. In particular, Ruckl specifically mentions an alkaline peroxide stage or treatment which, would, of course, entail an addition to the pulp.

Contrary to the argument (main brief, page 5) that there certainly is no fluidizing of the pulp after the ozone treatment is completed in Ruckl, we believe it fair to say that one versed in the art would consider the introduction of dilution water at 12 during the process of Ruckl to broadly be a fluidizing of the pulp.

We do not share appellants' viewpoint that the Fritzvold patent is "far afield from the invention" (main brief, page 6). Instead, like the examiner, we appreciate that Fritzvold clearly discloses (Figures 1 and 2) a process of bleaching pulp (solids content of approximately 35-50%) with ozone in an ozone reactor followed by the introduction of lye (sodium hydroxide) or bleaching chemicals, as the light and fluffy ozone treated pulp (pulp concentration of 15 to 30%) enters a maturation reactor.

In the Voitto process, a rotor 10 breaks up pulp (consistency from about 8 to 25%) into a homogeneous mass and assists the withdrawing of the pulp by a pump 5. The patentee further indicates (column 3, line 68 to column 4, line 1) that the rotor may be used to effect a mixing of chemicals, water, or vapor added to the pulp. We appreciate, as do appellants (main brief, page 7), that the rotor and pump are depicted as operating at a lower portion of the tower 2 (Figure 1).

As to independent claims 26 and 39, in particular, the focus of appellants' argument (main brief, page 5) is that steps (e) through (g) thereof are not addressed by the applied prior art. We agree.

As indicated above, we fully appreciate the relevant teachings relied upon by the examiner. However, in applying the test for obviousness,⁴ we reach the conclusion that the evidence relied upon would not have been suggestive of the claimed process without the impermissible guidance of appellants' own teaching. Simply stated, the evidence of obviousness would not have suggested fluidizing pulp (implemented by a fluidizer, of course), with a second bleaching chemical, in the first reaction vessel, as

⁴ The test for obviousness is what the combined teachings of references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

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claimed. At best, it is our opinion that Fritzvold, in particular, would have instructed one versed in the art to add a bleaching chemical to the ozone-treated pulp as the pulp entered bleaching tower 10 of Ruckl (Figure 1b). This, of course, is not the process now claimed by appellants. As to the additionally applied Kido patent, we find that it does not overcome the noted deficiency of the other applied prior art teachings.

The description issue

We do not sustain the examiner's rejection under 35 USC 112, first paragraph.

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. Further, the content of the drawings may also be considered in determining compliance with the written description requirement. See Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 19 USPQ2d 1111 (Fed. Cir. 1991) and In re Kaslow, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983).

Appellants' specification sets forth on page 4 (lines 7 through 9) that

the top of the reaction vessel is provided with a known fluidizing device which fluidizes the contents of the reaction vessel for discharging the mixture into a second vessel.....

More specifically, the specification (page 8) recites that

vessel 22 is provided at the top portion 25 thereof with a known fluidizing device or fluidizing discharger 26 which preferably has an integral injection port for the bleaching chemical at or near the fluidizing rotor or fluidizing device or discharger 26 so as to effect the proper mixing of the bleaching chemical with the fluidized paper pulp.

In the rejection (answer, page 5), it is indicated that the specification states that the pulp is fluidized by the discharger and, thus, it appears to the examiner that the pulp is fluidized during discharge and not prior to discharge. With this understanding, it is the opinion of the examiner that claims 26 and 39, setting forth separate steps of fluidizing and discharging, are not supported by the disclosure.

We are not in accord with this assessment.

From our review of the underlying relevant disclosure as set forth, *supra*, we find that the time sequence of fluidization and discharge is not specified. Further, we share appellant's understanding (main brief, page 4) that claims 26 and 39 do not call for fluidizing to take place prior to discharging, *i.e.*, the sequential order of steps in independent claims 26 and 39 does not

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itself denote a time sequence for the respective fluidizing step (f) and discharging step (g). For these reasons, we determine that the claimed subject matter does not lack a descriptive basis in appellants' disclosure.

In summary, this panel of the board has reversed the rejection of claims 26 through 37 and 39 through 44 under 35 USC 103 as being unpatentable over Ruckl in view of admitted prior art, Fritzvold, and Voitto,

reversed the rejection of claim 38 under 35 USC 103 as being unpatentable over Ruckl in view of admitted prior art, Fritzvold, Voitto, and Kido, and

reversed the rejection of claims 26 and 39 under 35 USC 112, first paragraph, as lacking support in the original disclosure (description requirement).

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The decision of the examiner is reversed.

REVERSED


IRWIN CHARLES COHEN
Administrative Patent Judge


WILLIAM E. LYDDANE
Administrative Patent Judge


CHARLES E. FRANKFORT
Administrative Patent Judge

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APPENDIX

--26. A method of bleaching medium consistency cellulose pulp with ozone as bleaching agent, utilizing a fluidizing mixer, and first and second reaction vessels, the second vessel larger than the first, comprising the steps of continuously:

(a) feeding medium consistency pulp and ozone gas in substantially non-consumable carrier gas under super-atmospheric pressure into the fluidizing mixer;

(b) intimately mixing the pulp and ozone in the fluidizing mixer to produce a uniform and intimate mixture of pulp and ozone;

(c) while maintaining the mixture under super-atmospheric pressure, feeding the mixture to the first reaction vessel;

(d) retaining the mixture in the first reaction vessel while it moves in a first direction until bleaching with the ozone in the mixture has been substantially completed;

(e) after substantial completion of the ozone bleaching reaction, while super-atmospheric pressure is maintained, introducing a second bleaching chemical, different from ozone, into the pulp in the first reaction vessel;

(f) fluidizing the pulp, with second bleaching chemical, in the first reaction vessel; and

(g) discharging the fluidized pulp in a second direction different than the first direction into the second reaction vessel, gas, including ozone carrier gas, separating from the pulp in the second reaction vessel.