

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* LEWIS D. SHACKFORD

---

Appeal No. 1998-2354  
Application 08/054,588

---

ON BRIEF

---

Before PAK, OWENS and TIMM, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is an appeal from the examiner's final rejection of claims 1 and 7-12, which are all of the claims remaining in the application.

*THE INVENTION*

The appellant's claimed invention is directed toward methods for initial gaseous bleaching and transporting of medium consistency pulp. Claim 1 is illustrative:

Appeal No. 1998-2354  
Application 08/054,588

1. A method for transporting pulp from an initial gaseous bleaching stage to subsequent bleaching stages, comprising the steps of:

supplying a medium consistency pulp to a pulp contactor apparatus included in the initial gaseous bleaching stage which comprises an ozone bleaching stage;

delivering to the pulp contactor apparatus a gaseous bleaching reagent at a predetermined pressure;

maintaining the pressure of the gaseous bleaching reagent within the pulp contactor apparatus;

discharging the medium consistency pulp from the pulp contactor apparatus under said gas pressure;

using the gas pressure maintained by the pulp contactor apparatus as the motive force to transport the medium consistency pulp and the gaseous bleaching reagent to at least an immediately subsequent bleaching stage;

disposing a mixer between the initial gaseous bleaching stage and the immediately subsequently bleaching stage; and

releasing a portion of the gas pressure from said mixer to reduce the quantity of the gaseous bleaching reagent carried forward to the immediately subsequent bleaching stage.

*THE REFERENCES*

Edlund et al. (Edlund) 5,116,475 May 26,  
1992 Tsai 5,389,201 Feb.  
14, 1995  
(effective filing date Feb. 28,  
1992)

John R. Lavigne, *Instrumentation Applications for the Pulp and*

Appeal No. 1998-2354  
Application 08/054,588

*Paper Industry* 100, 101, 158 (Miller Freeman Publications 1979).

*THE REJECTIONS*

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1 and 7-12 over Tsai in view of Edlund, and claims 8 and 9 over Tsai in view of Edlund and Lavigne.

*OPINION*

We reverse the aforementioned rejections.

Each of the appellant's independent claims requires using gas pressure from an initial gaseous bleaching stage to transport medium consistency pulp to another location.<sup>1</sup>

Tsai discloses contacting pulp, having a consistency of about 11% to 45%, in a mixer with about 0.2% to 0.5% ozone (based on oven dried pulp) contained in an ozone/oxygen mixture which is about 5 vol% to about 10 vol% ozone, at a pressure of about 60 and 100 psig (col. 2, lines 12-31). The ozone is consumed through chemical reaction in the mixer (col. 3, lines 56-58). The pulp, containing oxygen, is conveyed to a second mixer (col. 3, lines 63-64). The pulp optionally may

---

<sup>1</sup> The appellant argues that medium consistency pulp is about 9-18% oven-dry consistency (brief, pages 6-7), and the examiner does not challenge this definition.

Appeal No. 1998-2354  
Application 08/054,588

be off-gassed before and/or after the second mixer to adjust the quantity of oxygen in the pulp (col. 4, lines 26-27; figure 2).

Edlund discloses discharging cooked lignocellulose materials from a digester by supplying a gas to the upper portion of the digester such that the gas pressure and static pressure due to

Appeal No. 1998-2354  
Application 08/054,588

the height of cooked lignocellulose materials in the digester are used to discharge the cooked lignocellulose materials (abstract; col. 4, lines 19-39). Edlund teaches that use of pump discharge has a number of disadvantages caused by the presence of coarse particles such as wood pieces, stones and concrete clods (col. 2, lines 17-31).

The examiner acknowledges that it appears that Tsai's pulp is transported by a conventional apparatus such as a pump or a screw conveyor (answer, page 4). The examiner argues that it would have been obvious to one of ordinary skill in the art to use Edlund's gas pressure in Tsai's method to eliminate capital and operating costs associated with a pump. See *id.* The examiner argues that since Tsai's contactor is under pressure of up to 100 psig, one of ordinary skill in the art would have used that pressure to transport the pulp rather than using the optional off-gassing of the oxygen (answer, pages 7-8; supplemental answer, page 2).

In order for a *prima facie* case of obviousness to be established, the teachings from the prior art itself must appear to have suggested the claimed subject matter to one of

Appeal No. 1998-2354  
Application 08/054,588

ordinary

Appeal No. 1998-2354  
Application 08/054,588

skill in the art. See *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). The mere fact that the prior art could be modified as proposed by the examiner is not sufficient to establish a *prima facie* case of obviousness. See *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992).

Edlund's teaching, rather than being a general teaching regarding the use of gas pressure to transport pulp, is a specific teaching of using added gas pressure to discharge cooked lignocellulose material from a digester. The examiner argues that Edlund teaches the critical issue of using gas pressure to transport pulp (answer, page 7), but has not established that one of ordinary skill in the art would have been led by the applied prior art itself to combine a teaching directed toward discharging cooked lignocellulose material from a digester with a teaching of bleaching pulp. Moreover, although Tsai's first mixer is under a pressure of up to 100 psig, the examiner has not established that one of ordinary skill in the art would have considered the flow rate of gas, even if there is no off-gassing, to be adequate to transport

Appeal No. 1998-2354  
Application 08/054,588

the pulp. It reasonably appears that

Appeal No. 1998-2354  
Application 08/054,588

Tsai off-gasses to obtain the proper oxygen pressure for each stage of his method (col. 4, lines 26-27), and it is not apparent that one of ordinary skill in the art would have considered the amount of oxygen off-gassed to be sufficient for transporting the pulp. The examiner applies Lavigne only to dependent claims and does not rely upon it for any teaching which would remedy the deficiency in Tsai and Edlund.

The record indicates that, for the above reasons, the motivation relied upon by the examiner for combining the references comes from the description of the appellant's invention in the specification rather than coming from the applied prior art and that, therefore, 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 rejections.

Appeal No. 1998-2354  
Application 08/054,588

*DECISION*

The rejections under 35 U.S.C. § 103 of claims 1 and 7-12 over Tsai in view of Edlund, and claims 8 and 9 over Tsai in view of Edlund and Lavigne, are reversed.

*REVERSED*

	)	
CHUNG K. PAK	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
TERRY J. OWENS	)	)
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
CATHERINE TIMM	)	)
Administrative Patent Judge	)	

Appeal No. 1998-2354  
Application 08/054,588

JAMES EARL LOWE, JR.  
15417 W. NATIONAL AVENUE, #300  
NEW BERLIN, WI 53151

TJO:caw