

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte DAG ROMELL

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Appeal No. 1996-2802  
Application No. 08/140,142<sup>1</sup>

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ON BRIEF

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Before ABRAMS, NASE, and BAHR, Administrative Patent Judges.

ABRAMS, Administrative Patent Judge.

**DECISION ON APPEAL**

This is an appeal from the decision of the examiner finally rejecting claims 1, 3-18 and 20-22. At that point in the prosecution, claims 2 and 19 had been canceled. Claim 12

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<sup>1</sup> Application for patent filed November 3, 1993.

subsequently was canceled in an amendment after the final rejection, leaving before us on appeal claims 1, 3-11, 13-18 and 20-22. No claims have been allowed.

The appellant's invention is directed to a method of making compressed wood fuel pellets (claims 1, 3-11 and 13), a machine for making compressed wood fuel pellets (claims 14-17), and a compressed fuel pellet (claims 18 and 20-22). The claims on appeal have been reproduced in an appendix to the Brief.

**THE REFERENCES**

The references relied upon by the examiner to support the final rejection are:

McCan 1910	959,870	May 31,
Pfleumer Heritage 1954	1,542,576 2,666,463	Jun. 16, 1925 Jan. 19,
Matthews 1959	2,876,811	Mar. 10,
Gibbons 1963	3,084,620	Apr. 9,
Turner 1964	3,132,674	May 12,
Bonlie 1970	3,527,580	Sep. 8,

**THE REJECTIONS**

The following rejections stand under 35 U.S.C. § 103:

(1) Claims 1, 3-11, 13, 18, 20 and 21 on the basis of Matthews combined with McCan in view of Turner, Pfleumer and Heritage.

(2) Claims 14-17 and 22 on the basis of Matthews combined with McCan in view of Gibbons, Bonlie and Pfleumer.

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejections and the conflicting viewpoints advanced by the examiner and the appellant regarding the rejections, we make reference to the Examiner's Answer (Paper No. 17) and the Appellant's Brief (Paper No. 16).

#### OPINION

The initial burden of establishing a basis for denying patentability to a claimed invention rests upon the examiner. See *In re Piasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, *In re Keller*,

642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a *prima facie* case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See ***Ex parte Clapp***, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, ***Uniroyal, Inc. v. Rudkin-Wiley Corp.***, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988).

As manifested in independent claim 1, the inventive method is directed to making compressed fuel pellets and comprises the steps of severing a wafer off an elongate piece of wood against the grain, splitting out a portion of the wafer along the grain while maintaining the portion within the wafer, confining the portion in a direction generally perpendicular to the grain, and compressing the confined portion along the

grain. The examiner has rejected this claim as being unpatentable over the combined teachings of five references. The primary reference is Matthews, which discloses a machine for manufacturing wafers for use in constructing molded wood fiber board. Matthews teaches forming these wafers from the edge of a length of an elongate piece of wood by a series of lateral first cuts against the grain of the wood followed by a lengthwise cut along the grain. While this aspect of the Matthews invention can be read on the first (severing) step of claim 1, the reference does not disclose or teach any of the other three steps of the claimed method. In addition, Matthews is not directed to a method for making compressed wood fuel pellets and does not suggest that the pellets produced by the disclosed method would be usable for any purpose other than the manufacture of molded wood fiber board.

McCan is directed to the manufacture of fuel briquets "from wood shavings and other loose combustible woody refuse" (page 1, lines 8-10), and teaches placing this material in a tubular mold and compressing it by means of a plunger until the finished product is formed (page 1, line 54 *et seq.*). No further details of combining and compressing the material are

provided. The material contemplated for use in the McCan method does not include wood wafers. Therefore, while the above-noted teaching might be considered to be broadly applicable to the compressing step of the appellant's claim 1, the reference clearly has no relevance to the remaining steps recited in the claim.

Turner discloses a method for preparing wooden shafts for bending into shovel handles or the like, which includes the step of axially compressing an elongated shaft that previously has been softened by heat treatment. Although not explicitly established in the reference, it would appear that the axial compression is applied along the grain of the wood. However, while Turner confines and compresses the wood in the manner recited in the third and fourth steps of claim 1, from our perspective any relevance to the method recited in the claims can be established only by taking this Turner teaching out of context.

Pfleumer is directed to the making of solid wood items such as buttons, and Heritage to a densified wooden construction sheet. Both are cited for their teachings of compressing wood to particular levels so that the resultant

product does not expand after it is finished. Be that as it may, it is our view that neither of these references provides a teaching that can be read upon, or is relevant to, any of the steps in claim 1.

The examiner's rationale for combining the references (Answer, page 4) lacks any cogent explanation of why one of ordinary skill in the art would have been motivated to modify the Matthews method for making wafers for use in pressed construction board or, for that matter, the McCan method for making wooden fuel pellets of wood shavings, into the method recited in the appellant's claim 1. It is axiomatic that the mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). From our perspective, the examiner has assembled a collection of isolated teachings that can be combined in the manner proposed only by virtue of the hindsight acquired by one who first viewed the appellant's disclosure. As our reviewing court

advised in *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992):

It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention" (citations omitted).

Moreover, even considering the teachings of the five references together in the most favorable light, it is our opinion that they fail to suggest the particular relationship between the orientation of the grain of the wood and the operations performed in the steps of the claim, which is an important aspect of the appellant's invention.

The five references cited against claim 1 fail to establish a *prima facie* case of obviousness with regard to the subject matter recited in the claim. Therefore, we will not sustain the rejection of independent claim 1 or, it follows, of dependent claims 3-11 and 13.

The examiner has not even mentioned independent claim 18 in the explanation of the rejection found in the Answer, much

less explained why a compressed wood fuel pellet having the characteristics required by this claim would have been obvious in view of the teachings of the five references discussed above. Our own analysis has convinced us that the combined teachings of the references fail to establish a *prima facie* case of obviousness with regard to the wood pellet defined in claim 18. We therefore find ourselves in agreement with the appellant that the rejection of independent claim 18 and dependent claims 20 and 21 should not be sustained.

For essentially the same reasons as were explained above with regard to claim 1, we also will not sustain the rejection of independent claim 14 and dependent claims 15-17 and 22, which stand rejected on the basis of the combined teachings of Matthews, McCan, Gibbons, Bonlie and Pfleumer.

Claim 14 is directed to a machine for making compressed wood fuel pellets which comprises the elements necessary to perform all of the steps set forth in claim 1. These include a splitting edge for splitting a portion out of a wood wafer, a cage surface rearwardly of the splitting edge for confining the split portion in a direction generally perpendicular to the grain, and a compression hammer and opposed anvil to compress

the split portion along the grain. The teachings of Matthews, McCan and Pfleumer have been described above. Gibbons is directed to a crop wafering machine in which chopped fibers are compressed into feed pellets for livestock by a screw acting in concert with the friction encountered by the fibers as they are being pushed through a cylindrical tube. Bonlie discloses a rotary press comprising a pair of pocketed wheels for compressing granulated charcoal into fuel pellets. The reasoning of the examiner is expressed as "[h]aving the prior art before him it would have been obvious to the artisan to combine . . ." the references into a machine that meets the terms of the claim. What has not been provided is a concise explanation of the reasons why one of ordinary skill in the art would have been motivated to modify the Matthews device by the teachings in each of the other references so as to arrive at the invention recited in claim 14. As with the rejection of claim 1, it is our view that the only suggestion to combine the references in the manner intended by the examiner resides in hindsight, and therefore a *prima facie* case of obviousness has not been established.

SUMMARY

Neither of the rejections is sustained.

The decision of the examiner is reversed.

REVERSED

NEAL E. ABRAMS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JEFFREY V. NASE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
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	)	
JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

NEA/jlb

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