

**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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* EDWARD A. HUENNIGER

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Appeal No. 1999-2127  
Application No. 08/754,371<sup>1</sup>

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ON BRIEF

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Before ABRAMS, STAAB and CRAWFORD, *Administrative Patent Judges*.

ABRAMS, *Administrative Patent Judge*.

**DECISION ON APPEAL**

This is an appeal from the decision of the examiner finally rejecting claims 1-6, which constitute all of the claims of record in the application. However, on page 5 of

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<sup>1</sup> Application for patent filed November 21, 1996.

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the Answer the examiner has indicated that claim 3 contains allowable subject matter, which leaves claims 1, 2 and 4-6 before us on appeal.

The appellant's invention is directed to a heat exchanger. 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:

Vezie 1929	1,725,322	Aug. 20,
Newman et al. (Newman) 1971	3,568,764	Mar. 9,
Hartmann 1980	4,190,101	Feb. 26,

#### **THE REJECTIONS**

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Vezie.

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Claims 4 and 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Vezie in view of Hartmann.

Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Vezie in view of Hartmann and Newman.

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**OPINION**

*The Rejection Under 35 U.S.C. § 102(b)*

Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. See *In re Paulsen*, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994) and *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

Independent claim 1 is directed to a heat exchanger which comprises, *inter alia*, "a first pass including a plurality of heat transfer tubes" and "a second pass defined by a single, large diameter pipe . . . ." The examiner reads the first pass on the plurality of tubes 10 disclosed in Vezie, and the second pass on any one of the eight larger tubes 12 (Answer, page 2). We agree with the appellant this is not a proper interpretation of the claim language.

One of ordinary skill in the art would have understood from the appellant's specification as well as common knowledge in the art that a "pass" is a single movement from one end to the other through a heat exchanger, and that while the first

pass is through a plurality of tubes (30), the second pass is through a single larger diameter tube (40), and not through a plurality of larger diameter tubes. As a matter of fact, this is the essence of the appellant's invention, as clearly is explained on pages 1 and 2 of the specification. We therefore interpret the phrase of claim 1 that reads "a second pass defined by a single, large diameter pipe extending from said intermediate water box through said chamber to said outlet water box"<sup>2</sup> literally, that is, that it requires that there be only one single pipe. Having so interpreted the disputed language, it is clear that Vezie fails to disclose or teach this feature, in that its second pass is defined by eight larger diameter pipes, rather than one.

Vezie therefore does not anticipate the subject matter recited in claim 1, and we will not sustain this rejection of claim 1 or, it follows, of claim 2, which depends therefrom.

*The Rejections Under 35 U.S.C. § 103*

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<sup>2</sup> Emphasis added.

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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, 1052 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988).

Claims 4 and 5 stand rejected as being unpatentable over Vezie in view of Hartmann, and claim 6 additionally in view of Newman. As discussed above, the second pass of the heat exchanger in Vezie comprises more than one pipe, and therefore

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the language of claim 1, from which claims 3-6 depend, literally is not met by Vezie. This situation is not altered, in our view, by considering the teachings of Vezie in the light of 35 U.S.C.

§ 103, alone or with the other two references, for we fail to perceive any teaching, suggestion or incentive which would have led one of ordinary skill in the art to eliminate seven of the eight large diameter second pass pipes disclosed by Vezie. These two rejections thus fail at the outset, for the references do not establish a *prima facie* case of obviousness with regard to the subject matter of claims 4-6, and we will not sustain them.

#### **SUMMARY**

The rejection of claims 1 and 2 as being anticipated by Vezie is not sustained.

The rejection of claims 4 and 5 as being unpatentable over Vezie in view of Hartmann is not sustained.

The rejection of claim 6 as being unpatentable over Vezie in view of Hartmann and Newman is not sustained.

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The decision of the examiner 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
	)	
	)	
	)	
MURRIEL E. CRAWFORD	)	
Administrative Patent Judge	)	

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