

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL L. PERRY

Appeal 2007-3963
Application 10/981,183
Technology Center 1700

Decided: January 4, 2008

Before EDWARD C. KIMLIN, CATHERINE Q. TIMM, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's
decision rejecting claims 1-5. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

I. BACKGROUND

The invention relates to a fuel cell power plant including multiple stages of fuel cell stacks. The stages are connected in tandem by a unitary manifold assembly. Claim 1 is illustrative of the subject matter on appeal:

1. A fuel cell power plant power section assembly comprising:

- a) a plurality of fuel cell stacks, said fuel cell stacks being being [sic] divided into at least two stages which are provided by a fuel gas stream in tandem with partially spent fuel from one stage being fed into a subsequent stage, said one stage including a plurality of fuel cell stacks, and said subsequent stage including at least one fuel cell stack;
- b) a unitary manifold assembly for use in controlling the flow of reactant gas streams between said plurality of fuel cell stacks in said one stage and said subsequent stage, said manifold assembly comprising a single fuel gas passage operatively connected to said plurality of fuel cell stacks in said one stage, said fuel gas passage being operative to receive partially expended fuel gas streams exhausted from said plurality of fuel cell stacks and to combine said partially expended fuel gas streams into a combined fuel gas stream, and said fuel gas passage also being operatively connected to said at least one fuel cell stack in said subsequent stage for directing the combined fuel gas stream to said at least one fuel cell stack in said subsequent stage, whereby the combined fuel gas stream is used to provide fuel for the subsequent stage fuel cell stack; and
- c) thermal insulation which thermally insulates said manifold assembly from ambient temperatures so as to limit moisture condensation in said fuel gas passage.

Appellant requests review of the following rejections made under 35 U.S.C. § 103(a):

1. The rejection of claim 1 over Katz (EP 0 263 052 A1 published Apr. 6, 1988) in view of Brambilla et al. (US 2003/0099873 A1 published May 29, 2003);

2. The rejection of claims 2-4 over Katz in view of Brambilla further in view of Deshpande et al. (US 2004/0197625 A1 published Oct. 7, 2004); and
3. The rejection of claim 5 over Katz in view of Bambilla further in view of Cargneli et al. (US 2003/0008194 A1 published Jan. 9, 2003).

II. DISCUSSION

The issue on appeal arising from the contentions of Appellants and the Examiner is: Does Katz describe “a unitary manifold assembly” within the meaning of claim 1?

We answer this question in the negative.

The Examiner finds that exhaust conduits 110 and 112 and conduit 108 forms “a unitary manifold assembly” as required by claim 1 (Ans. 3, *see also* Katz, Fig. 2 and col. 4, ll. 24-33). In essence, the Examiner is interpreting “unitary manifold assembly” as encompassing simple conduit-type feed lines. We reject that interpretation.

“[A]s an initial matter, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

When referring to a piece of machinery or apparatus, a “manifold” is commonly understood as “a chamber having several outlets through which a

liquid or gas is distributed or gathered.” “manifold.” *Dictionary.com Unabridged (v 1.1)*. Random House, Inc. 13 Dec. 2007. Appellant’s Specification uses the word “manifold” in conformance with the commonly understood definition (Specification, p. 4, ¶ 3 and Fig. 3). As illustrated in Figure 3, a manifold has chambers within in a larger structure. A manifold is a separate and distinct structure from simple piping.

We note that the further language “comprising a single fuel gas passage” found in claim 1 does not negate the limiting affect of the word “manifold” on the claim. The “passage” referenced in the claim must be the type of chamber found in a manifold.

As pointed out by Appellants, Katz fails to describe any manifold assembly, unitary or non-unitary, in the fuel cell power plant described therein (Br. 6). Katz only describes the use of “conduits” 108, 110, and 112. The Examiner has failed to identify a teaching or suggestion in the prior art of the “unitary manifold assembly” required by claim 1.

The other prior art, as relied upon by the Examiner, does not cure the deficiency discussed above. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness within the meaning of 35 U.S.C. § 103(a) for claims 1-5.

III. DECISION

The decision of the Examiner is reversed.

REVERSED

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