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ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			SAHA, BIJAY S	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NORBERT BRAUN, JORG EILERS and DIRK MULLER

Appeal 2012-000345
Application 11/721,077
Technology Center 1700

Before CHUNG K. PAK, PETER F. KRATZ, and
BEVERLY A. FRANKLIN, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1-10. We have jurisdiction pursuant to 35 U.S.C. § 6.

Appellants' claimed invention is directed to an odorant for hydrogen gas comprising one or more acrylic acid alkyl esters and acetophenone, an odorized hydrogen gas containing same, and a process for preparing such an odorized gas. As Appellants explain (Spec. 2, ll. 1-6):

[t]hese odorants are perceptible even when highly diluted and because of their exceptionally unpleasant odour they provoke an alarm association in people in the desired way. The odorant must not only have an unpleasant and unmistakable odour but above all must clearly represent a warning odour. The smell of the odorant and the odorised (fuel) gas must therefore not be familiar to people from everyday life, e.g. from the kitchen or home.

Appellants note that hydrogen odorants should be compatible with catalysts (Spec. 10, ll. 9-13). Appellants report that mixtures of acetophenone and the acrylic acid alkyl esters have markedly improved odorizing performance as compared to either component utilized alone (Spec. 13 and 14).

Claim 1 is illustrative and reproduced below:

1. A nitrogen-free, selenium-free and sulfur-free odorant for hydrogen gas, comprising
 - A) one or more acrylic acid C₁-C₆-alkyl esters;
 - B) acetophenone;
 - C) optionally one or more compounds from the group of C₃-C₄-aldehydes;
 - D) optionally one or more antioxidants.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Farbood

6,165,517

Dec. 26, 2000

Flynn	2004/0031314 A1	Feb. 19, 2004
Kato	2005/0020479 A1	Jan. 27, 2005
Mansfield (as translated)	DE 10235752 A1	Feb. 19, 2004

The Examiner maintains the following grounds of rejection:

Claims 1-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mansfield (DE 1023572 A1) in view of Farbood and Kato.¹

We reverse the stated rejection. Our reasoning follows.

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Here, the Examiner has not met that burden substantially for reasons argued by Appellants (App. Br. 4-9, 14, and 15; Reply Br. 1-3).

The Examiner recognizes that Mansfield does not disclose an odorant composition for gaseous fuel that includes methane that comprises acetophenone in addition to the acrylic acid alkyl esters of Mansfield (Ans. 5).² The Examiner turns to Farbood for teaching acetophenone “for its organoleptic properties in augmenting or enhancing the aroma (Farbood col 2 line 40)” (Ans. 5).

Based on the additional teachings of Farbood, the Examiner maintains that “it would have been obvious to a person of ordinary skill in the art to

¹ The first listed named co-inventor of DE 1023572 is Gerd Mansfield. The Examiner refers to this reference utilizing the first name of Gerd Mansfield.

² All of the appealed claims require that the odorant includes acetophenone in addition to acrylic acid alkyl esters (see independent appealed claims 1, 8, and 9).

formulate an odorant (Gerd [Mansfield]) utilizing acetophenone (Farbood)” because “[o]ne of ordinary skill in the art . . . would have been motivated to use acetophenone” in order to “to augment the fragrance compositions and enhance[] the effect of odorant in the gas” (id.).

Farbood is not directed to an odorant for a fuel gas containing methane as Mansfield is concerned with or an odorant for a hydrogen gas as the appealed claims are directed to (App. Br. 5). Rather, Farbood teaches that acetophenone “is useful for its organoleptic properties in augmenting or enhancing the aroma or taste of consumable materials such as food stuffs, chewing gums, toothpastes . . . and the like” (col. 2, ll. 25-47). The Examiner has not reasonably explained why one of ordinary skill in the art would have been led to employ the acetophenone of Farbood, which is taught to enhance the aroma or taste of the various consumable products mentioned by Farbood, in combination with the odorant including acrylic acid alkyl esters of Mansfield for formulating a combined odorant product for hydrogen gas (App. Br. 6-9; Reply Br. 1-4). In this regard, the Examiner’s assertion to the effect that the proposed combination would have been obvious to one of ordinary skill in the art because between Mansfield and Farbood the acrylic acid alkyl esters and acetophenone are taught begs the question as to the obviousness of their combination (Ans. 14). After all, the Examiner has not even established that Farbood is directed to formulating an odorant composition that could be useful for detecting a gaseous fuel.

On this record, the Examiner’s proposed modification of Mansfield appears to be premised on an impermissible use of hindsight after review of Appellant’s disclosure rather than on a supported reason to modify

Mansfield based on the disparate teachings of Farbood in combination therewith. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (The fact finder must be aware “of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning”; citing *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966) (warning against a “temptation to read into the prior art the teachings of the invention in issue”)). Rejections based on § 103(a) must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. *See In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967).

The Examiner has not explained how the additional cited Kato reference remedies the above-noted deficiencies in the stated rejection. As stated in *KSR*, 550 U.S. at 418 (2007), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

It follows that we do not sustain the Examiner’s obviousness rejection over the applied prior art.

ORDER

The Examiner’s decision to reject the appealed claims is reversed.

REVERSED

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Application 11/721,077

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