

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MITSUYA OHASHI and ISAMU MORI

Appeal 2008-0321
Application 10/289,443
Technology Center 1700

Decided: March 31, 2008

Before CATHERINE Q. TIMM, LINDA M. GAUDETTE, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

1 Appellants appeal under 35 U.S.C. § 134 the final rejection of claims 1, 4, 11-13, 19, 20, and 27-34.¹ We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

¹ An oral hearing was conducted on March 13, 2008.

1. Claims 1, 4, 11-13, 19, 20, and 27-34 are rejected under 35 U.S.C. § 103 as being unpatentable over Dell'Amico in view of Farlow.

The Examiner finds that Dell'Amico discloses a metal chloride-carbon monoxide reaction to form a carbonyl dichloride, which differs from the claimed invention by using chlorine instead of fluorine (Ans. 3). However, the Examiner finds that substituting fluorine for chlorine would have been an obvious variant of Dell'Amico's process as both are in the same chemical group and Farlow performs essentially the same reaction as Dell'Amico, except that Farlow uses fluorine not chlorine as the halogen (Ans. 3).

Alternatively, the Examiner finds that Farlow discloses the claimed reaction of a metal fluoride with carbon monoxide to form carbonyl difluorides, but does not disclose the regeneration of the metal fluoride that is reacted with carbon monoxide (Ans. 3). The Examiner finds that Dell'Amico discloses a regenerating process for metal chlorides (i.e., metal halides) (Ans. 3). The Examiner concludes that it would have been prima facie obvious to regenerate the metal salt (i.e., the metal fluoride) in Farlow's dicarbonyl fluoride production process in view of Dell'Amico's metal halide regeneration process in order to permit continuous operation of Farlow's process (Ans. 3).

OPINION

Appellants argue that Dell'Amico reacts a gold carbonyl chloride with chlorine to regenerate the gold trichloride (i.e., the metal halide salt), and does not react a metal halide (i.e., a metal fluoride) with a halogen (i.e., fluorine) to regenerate the metal halide starting material (Br. 5-6).

Appellants contend that Dell'Amico's gold carbonyl chloride is not

analogous to the claimed metal fluoride (i.e., metal halide) because it is chemically and structurally different (Br. 6). Appellants contend that in light of these differences between Dell'Amico's process and Appellants' claimed process, there is no reasonable expectation of successfully arriving at the claimed process because a metal fluoride reacts differently than a metal carbonyl chloride (i.e., a metal carbonyl halide) (Br. 5 and 6).

The Examiner bears the initial burden of establishing a prima facie case. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Only after the Examiner has established a prima facie case does the burden shift to applicant to come forward with evidence or argument to rebut the prima facie case. *Id.*

The Examiner has not established that Dell'Amico's gold carbonyl chloride is analogous to Appellants' claimed "second metal fluoride" (i.e., a metal halide). *Hawley's Condensed Chemical Dictionary* defines "halides" as "binary compounds of the halogens."² Accordingly, a "metal fluoride" is a binary compound of a metal and fluorine. Therefore, as evinced by *Hawley's* definition of "halides," the Examiner erred in finding that a metal carbonyl halide is the claimed "second metal" halide (i.e., second metal fluoride) (Ans. 4). A metal carbonyl halide is not a binary compound of a halogen.

Furthermore, the Examiner's statement that the claims do not exclude metal carbonyl halides as intermediates (Ans. 4) fails to establish that the metal carbonyl halide intermediates form metal halides upon completion of the reaction. The Examiner has simply failed to provide any evidence to support this conclusory statement.

² *Hawley's Condensed Chemical Dictionary*, 582 (12th Ed. 1993).

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In light of the foregoing circumstances, the Examiner has not established that the prior art shows a regeneration process using a “second metal fluoride” (i.e., a metal halide) as the claims require and the Specification supports (Spec. 3-4). In other words, the Examiner has not shown that the prior art discloses all of the claim features. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974).

From the foregoing, the Examiner has not satisfied the burden of establishing a prima facie case of obviousness. *Oetiker*, 977 F.2d at 1445. We cannot sustain the Examiner’s § 103 rejection of claims 1, 4, 11-13, 19, 20, and 27-34 over Dell’Amico in view of Farlow.

DECISION

The Examiner’s decision is reversed.

REVERSED

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