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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOACHIM ZECHLIN, BERND PENNEMANN,
FRIEDHELM STEFFENS, and WENBIN JI

Appeal 2010-011164
Application 11/448,265
Technology Center 1600

Before RICHARD E. SCHAFER, ROMULO H. DELMENDO, and
RICHARD M. LEBOVITZ, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

This is a decision on the appeal under 35 U.S.C. § 134 by the Patent Applicants from the Patent Examiner's rejections of claims 1-8. The Board's jurisdiction for this appeal is under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Claims 1-8 stand rejected by the Examiner under 35 U.S.C. § 103(a) as obvious in view of Forlin² and Grun³ (Answer 4). Claim 1 is representative and reads as follows:

A process for the production of toluene diisocyanate comprising:

a) hydrogenating dinitrotoluene in the presence of a catalyst, to yield a crude toluenediamine mixture.

b) purifying the crude toluenediamine mixture, to yield a toluenediamine which contains a total of less than 0.1% by weight of cyclic ketones, based on 100% by weight of the toluenediamine,

and

c) phosgenating the toluenediamine which contains a total of less than 0.1% by weight of cyclic ketones, based on 100% by weight of the toluenediamine, to yield the toluene diisocyanate.

ISSUE

Claim 1 is directed to a process for producing toluene diisocyanate comprising three steps: a) hydrogenating dinitrotoluene to yield a crude toluenediamine mixture; b) purifying the crude toluenediamine mixture "to yield a toluenediamine which contains a total of less than 0.1% by weight of cyclic ketones"; and c) phosgenating the toluenediamine to yield toluene

² U.S. Patent Application No. 2004/0092773 (filed June 29, 2001) (published May 13, 2004).

³ U.S. Patent Application No. 2004/0118672 (filed Oct. 16, 2003) (published June 24, 2004).

diisocyanate. The issue in this appeal is whether the Examiner shifted the burden to Appellants to show that the prior art process of Forlin did not produce a toluenediamine with “less than 0.1% by weight of cyclic ketones,” and if so, whether Appellants provided sufficient reason or evidence to rebut the Examiner’s determination.

LEGAL PRINCIPLES

Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. See *In re Ludtke*, [441 F.2d 660 (CCPA 1971)]. Whether the rejection is based on “inherency” under 35 U.S.C. § 102, on “prima facie obviousness” under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products. See *In re Brown*, 459 F.2d 531. . . ([CCPA]1972).

In re Best, 562 F.2d 1252, 1255 (CCPA 1977).

The applicant has the burden of coming forward with evidence in rebuttal, when the prior art includes a method that appears, on its face, to be capable of producing the claimed composition. This burden may be met by presenting sufficient reason or authority or evidence, on the facts of the case, to show that the prior art method would not produce or would not be expected to produce the claimed subject matter.

In re Kumar, 418 F.3d 1361, 1368 (Fed. Cir. 2005).

FINDINGS OF FACT

We adopt the Examiner's findings of fact as set forth in the Answer.

ANALYSIS

Forlin was cited by the Examiner for describing a process in which dinitrotoluene was hydrogenated in the presence of a catalyst to yield toluenediamine of a purity over 99% after distillation (Answer 5). The Examiner found that Forlin's process met steps a) and b) of claim 1. Although the Examiner determined that Forlin did not expressly disclose whether cyclic ketones were present in his purified toluenediamine in the claimed range, the Examiner found that a purification step was performed with the intent to produce toluenediamines with high purity (*id.* at 8). The Examiner found that since Forlin went through purification steps to eliminate by-products and improve purity, it was reasonable to conclude that cyclic ketones were reduced to the claimed levels of less than 0.1% by weight (*id.* at 9).

Appellants contend that cyclic ketones were not removed by Forlin's process. They assert that the conventional distillation process described by Forlin "will simply pass the cyclic ketones from the amine to the isocyanate since these distillation processes are not able to distinguish the cyclic ketones from the amine on the basis of boiling points." (App. Br. 9; *see also* Reply Br. 7.)

The Examiner found that process steps a) and b) of claim 1 were indistinguishable from the process described in Forlin. The apparent identity between the prior art and the claimed process served as the Examiner's rationale for concluding that Forlin's process would result in a purified

“toluenediamine which contains a total of less than 0.1% by weight of cyclic ketones” as required by claim 1. The Examiner’s reasoning was fact-based and logical. The burden therefore properly shifted to Appellants to show that Forlin’s process did not produce a toluenediamine with the claimed cyclic ketone levels. *Best*, 562 F.2d at 1255; *Kumar*, 418 F.3d at 1368.

Appellants did not meet this burden. Appellants did not provide persuasive evidence or reasoning that Forlin’s toluenediamine – produced by the same process which is claimed – comprised amounts of cyclic ketone in excess of those required by the claims. The argument that Forlin’s distillation process can not separate out cyclic ketones due to the closeness of their boiling points (Reply Br. 7-8) is not substantiated by objective evidence. All we have before us is an argument made by counsel. Even the reasoning about boiling point closeness is not buttressed by independent evidence of the actual boiling points of the compounds and how boiling point proximity would interfere with purification as described by Forlin. Counsel’s unsupported argument does not outweigh the Examiner’s evidence of the apparent equivalence of the claimed and prior art processes.

Appellants make arguments about the examples in the patent application (App. Br. 15). But the claims are not limited to the processes described in the examples and no comparison with Forlin’s process was performed.

For the foregoing reasons and those presented by the Examiner, we affirm the rejection of claim 1. Claims 2-8 fall with claim 1 because separate reasons for their patentability were not provided. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appeal 2010-001164
Application 11/448,265

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

KMF

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