

United States Court of Appeals for the Federal Circuit

(Reexamination No. 90/008,482)

IN RE GLATT AIR TECHNIQUES, INC.

2010-1141

Appeal from the United States Patent and Trademark
Office, Board of Patent Appeals and Interferences.

Decided: January 5, 2011

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Krumholz & Mentlik, LLP, of Westfield, New Jersey
argued for appellant. With him on the brief were MARCUS
J. MILLET and ROY H. WEPNER.

RAYMOND T. CHEN, Solicitor, Office of the Solicitor,
United States Patent and Trademark Office, of Alexan-
dria, Virginia, argued for the Director of the United
States Patent and Trademark Office. With him on the
brief were FRANCES M. LYNCH and WILLIAM LAMARCA,
Associate Solicitors. Of counsel was ROBERT J. MCMANUS,
Associate Solicitor.

Before NEWMAN, PROST, and MOORE, *Circuit Judges*.

PROST, *Circuit Judge*.

Glatt Air Techniques, Inc. (“Glatt”) appeals from the final decision of the Board of Patent Appeals and Interferences (“Board”) holding claim 5 in reexamination number 90/008,482 unpatentable for obviousness under 35 U.S.C. § 103(a). *See Ex parte Glatt Air Techniques, Inc.*, No. 2009-012215 (B.P.A.I. Sept. 29, 2009) (“*Decision*”). Because some of the Board’s key factual findings relating to its obviousness analysis are not supported by substantial evidence, and because the Board erred in concluding that the claims would have been obvious as a matter of law, we reverse.

BACKGROUND

A. The Invention

The invention involves a coating apparatus known as a Wurster coater used to coat particles, e.g., pharmaceutical ingredients. Wurster coaters work by spraying the desired coating material onto particles circulating within the apparatus. Prior art Wurster coaters, including Glatt's own Wurster coating apparatus, suffer from particle agglomeration, which increases the amount of time it takes to coat the particles. The agglomeration occurs because the circulating particles prematurely enter the stream of coating spray before the spray pattern has fully developed. This premature entry causes the particles to become overly wet and to stick together causing blockages in the apparatus. Glatt's solution to this problem involves shielding the coating spray nozzle to prevent the particles from entering the spray prematurely.

The specification of U.S. Patent No. 5,236,503 ("503 patent") describes embodiments of the invention that contain a cylindrical partition that surrounds the coating spray nozzle and acts as a physical shield to prevent premature entry of the circulating particles. The specification additionally notes that "other shielding arrangements may be utilized. For example, shielding of the spray nozzle may be accomplished by formation of an air wall or stream that surrounds the nozzle and prevents particles from prematurely entering into the spray pattern." '503 patent col.5 ll.3-12.

Glatt's invention is embodied in claim 5 of the reexamination:

5. In a fluidized bed coater having a product container opening upwardly into an expansion chamber and downwardly into a lower plenum chamber through an air distribution plate/screen having openings formed therethrough for upward air flow from said lower plenum chamber into said product container, said product container including a substantially cylindrical partition spaced above said air distribution plate/screen for defining an inner upbed area and an outer downbed area, and an upwardly discharging spray nozzle mounted substantially centrally within said cylindrical partition, the improvement comprising shielding means positioned adjacent said spray nozzle for *shielding* the initial spray pattern developed by said nozzle against the entrance of particles moving upwardly through the upbed.

'503 patent col.8 1.62-col.9 1.8 (emphasis added). Claim 5 is written in Jepson format, where the preamble recites prior Wurster coaters, and the invention is an improvement, i.e., a shield used in the Wurster coater. The portion of claim 5 describing this improvement contains a means-plus-function limitation—a “shielding means.”

B. The Reexamination Proceeding

The '503 patent issued to Glatt on August 17, 1993. On February 8, 2007, a third party requested ex parte reexamination of the patent. The U.S. Patent and Trademark Office (“PTO”) granted reexamination as to claims 5-8 and 10 of the '503 patent. During reexamination, Glatt canceled claims 6, 7, and 9-11, limiting the reexamination to unamended claim 5 and amended claim

8. The examiner rejected unamended claim 5, but allowed amended claim 8. Glatt appealed the examiner's rejection of claim 5 to the Board, which affirmed the examiner's rejection.

Because claim 5 is written in Jepson format, the Wurster coating apparatus described in the claim's preamble is prior art. *See, e.g., In re Ehrreich*, 590 F.2d 902, 909 (CCPA 1979) (“[T]he preamble elements in a Jepson-type claim are impliedly admitted to be old in the art”). Accordingly, the examiner rejected claim 5 under 35 U.S.C. § 103(a) as obvious in view of the admitted prior art from the claim preamble and a single cited reference, German Patent DE 3323418 (“Naunapper”). J.A. 493. Looking to the specification of the '503 patent, the examiner construed claim 5's “shielding means” to include “formation of an air wall or stream that surrounds the nozzle and prevents particles from prematurely entering into the spray pattern” (“air wall”). J.A. 495. The examiner determined that Naunapper teaches a shielding means. J.A. 494. According to the examiner, Naunapper's shielding means is “an air wall, or air jacket, surrounding said spray nozzle.” *Id.* The examiner concluded that “[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a shielding means . . . as taught by Naunapper . . . [in the admitted prior art Wurster coater].” *Id.* Thus, the examiner's rejection was based on Naunapper allegedly teaching an air wall shielding means.

In addition to traversing the examiner's obviousness rejection, Glatt offered various types of secondary considerations evidence, including evidence of unexpected results, long-felt need, and commercial success due to the

improvement, to rebut the examiner's prima facie case.¹ The examiner determined that Glatt's evidence of commercial success was not commensurate in scope with claim 5. J.A. 499-500. In light of this, and other, alleged deficiencies in Glatt's secondary considerations evidence, the examiner found Glatt's evidence insufficient to overcome the prima facie case of obviousness.

Glatt appealed the examiner's final rejection of claim 5 to the Board, and the Board affirmed the examiner. The Board agreed that claim 5's shielding means includes an air wall. *Decision* at 12-13. It found that Naunapper "plainly teaches an arrangement that can provide . . . an air wall or stream surrounding the [coating spray] nozzle to address the same or similar problem discussed in the '503 Patent," and concluded that the arrangement described in Naunapper "would inherently or necessarily be capable of performing the same function recited for the claimed 'shielding means.'" *Id.* at 13-14. Like the examiner's rejection, the Board's determination was based on its finding that Naunapper teaches shielding the coating spray nozzle.

The Board also addressed Glatt's secondary considerations evidence. *Id.* at 14-15. It noted that none of the submitted affidavits included a comparison of the claimed

¹ Evidence of "[s]econdary considerations [such] as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented' and 'may have relevancy' as indicia of obviousness." *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311 (Fed. Cir. 2006). Thus, objective evidence of nonobviousness can be used to rebut a prima facie case of obviousness. *Id.*

invention against an air wall shield such as the one taught by Naunapper. The Board agreed that the examiner properly found Glatt's evidence unpersuasive because "no evidence demonstrates any unexpected result or commercial success based on the actual difference between the claimed invention, as broadly recited, and Naunapper's apparatus." *Id.* at 15 (emphasis omitted). It therefore concluded that Glatt's evidence of nonobviousness was insufficient to outweigh the evidence of obviousness. *Id.*

Glatt timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. 35 U.S.C. § 103(a). We review the Board's ultimate determination of obviousness de novo and the Board's underlying factual findings for substantial evidence. *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000). In reviewing the record for substantial evidence, this court takes into account evidence that both justifies and detracts from the factual determinations. *Id.* We must uphold the Board's determination if a reasonable mind might accept the evidence as adequate to support the Board's factual conclusions. *Id.*

On appeal, Glatt challenges the Board's decision on two primary grounds. First, Glatt contends that the Board has not made a proper prima facie case of obviousness because Naunapper does not teach shielding the nozzle to prevent particles from prematurely entering into

the initial spray pattern. Second, Glatt argues that the Board erred by rejecting Glatt's secondary considerations evidence. We address each of Glatt's arguments in turn.

A. Prima Facie Case of Obviousness

As Glatt does not contest that the preamble to claim 5 is admitted prior art, our inquiry is reduced to whether Glatt's invention as a whole would have been obvious to a person of ordinary skill in the art in view of the prior art Wurster coaters described in the claim and the Naunapper reference. *See, e.g., In re Fout*, 675 F.2d 297, 301 (CCPA 1982). Both Glatt's invention and Naunapper's coating apparatus contain coating spray nozzles. Both also include an air source located below the coating spray nozzle. This air is used to circulate the particles in the apparatus into the spray of coating material. Additionally, Glatt's invention includes an element that reduces particle agglomeration—a shielding means that prevents the circulating particles from prematurely entering the initial spray pattern. Naunapper contains no such element; however, the PTO argues that the air source itself can be used to generate an air wall that shields the particles from the initial spray pattern. The PTO indicates that Naunapper combats the particle agglomeration problem by temporarily increasing the airflow from the air source. The “burst” of air generated by this technique clears blockages by blowing through the agglomeration and dispersing the particles.

The Board properly found that Naunapper teaches modulating gas flow in the coating apparatus to control particle agglomeration. It is readily apparent, however, that this technique does not shield circulating particles from entering the initial spray pattern. Naunapper teaches a way to *remedy* the blockage caused by particle

agglomeration using bursts of air. In contrast, Glatt's invention *prevents* the agglomeration from occurring in the first place. The Board's finding that Naunapper teaches shielding the nozzle to prevent particles from prematurely entering into the initial spray pattern is not supported by substantial evidence because Naunapper does not teach shielding. Naunapper's air source can be used to (1) circulate particles and (2) clear blockages. The air source cannot perform both of these functions simultaneously, and more importantly, neither of these functions constitutes shielding. Because Naunapper does not teach shielding, we conclude that the Board has failed to make a proper prima facie case of obviousness.

B. Secondary Considerations

Because the Board has not established a prima facie case of obviousness, we only briefly address the PTO's arguments regarding secondary considerations. Like the examiner, the PTO contends that Glatt's secondary considerations evidence was not commensurate with the scope of claim 5. The PTO construes "shielding means" to include both a physical shield and an air wall shield. It notes that Glatt's submitted evidence relates only to a single embodiment—a physical shield as contained in Glatt's commercially available product. The PTO suggests that Glatt must provide evidence addressing an air wall shielding means for the submitted evidence to be commensurate in scope with claim 5.

To the extent the PTO asserts that Glatt needed to submit commercial success evidence from multiple embodiments for that evidence to be commensurate in scope with claim 5, this position is not consistent with our precedent. It seems unlikely that a company would sell a product containing multiple, redundant embodiments of a

patented invention. The fact that Glatt's commercial products only contain one type of shielding means does not make its commercial success evidence irrelevant. Under the PTO's logic, there would never be commercial success evidence for a claim that covers more than one embodiment. Rather, we have consistently held that a patent applicant "need not sell every conceivable embodiment of the claims in order to rely upon evidence of commercial success." *In re DBC*, 545 F.3d 1373, 1384 (Fed. Cir. 2008) (quoting *Applied Materials, Inc. v. Adv. Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1570 (Fed. Cir. 1996)). Commercial success evidence should be considered "so long as what was sold was within the scope of the claims." *Id.*

CONCLUSION

Substantial evidence does not support the Board's finding that Naunapper expressly or implicitly teaches using an air wall to shield particles from entering the initial spray pattern. The Board has not made a proper prima facie case of obviousness. Accordingly, we reverse.

REVERSED