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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL JOHN LUCAS,
JAMES DAVID GILLON, and JASON WILLIAM HUNT

Appeal 2012-009262
Application 12/463,457
Technology Center 3700

Before: CHARLES N. GREENHUT, LISA M. GUIJT, and
TIMOTHY J. GOODSON, *Administrative Patent Judges*.

GREENHUT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from a rejection of claims 1–
13. App. Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

The claims are directed to a double throat pulsation dampener for a
compressor. Claim 1, reproduced below, is illustrative of the claimed
subject matter:

1 A method of attenuating fluid dynamic pulsations that propagate through a flow of fluid at a convective velocity of the fluid, the pulsations having an organized vortical structure, the method comprising:

directing the flow to a pulsation dampener inlet having a first area;

transitioning the organized vortical structure to a small-scale turbulent structure by squeezing the vortices by passing the flow of fluid through a passage having a second area that is smaller than the first area, then instantaneously expanding the flow of fluid by passing it into a chamber having a third area measured at an inlet of the chamber that is larger than the second area, the third area being the largest area within the chamber; and

discharging the flow of fluid from the chamber via a contracting flow path, the flow of fluid including attenuated fluid dynamic pulsations and acoustic pulsations that travel through the flow of fluid at the speed of sound.

REJECTIONS

Claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bloomer (US 6,347,609 B1, iss. Feb. 19, 2002). Ans. 4.

Claims 1 and 3–13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gobert (US 5,905,233, iss. May 18, 1999) and Bloomer. Ans. 6.

OPINION

The rejection under 35 U.S.C. § 102(b) is reversed.

The Examiner's rejection under § 102 is premised on the interpretation of noise in Bloomer as the recited "fluid dynamic pulsations." Ans. 10. The Examiner, however, provides no explanation as to how the noise in Bloomer meets the other recited limitations associated with the fluid

dynamic pulsations such as having a “vortical structure” or “propagat[ing] . . . at a convective velocity of the fluid.” App. Br. 11–12. Noise travels at the speed of sound, and there is no indication that Bloomer’s fluid travels at that same speed. In fact, as Bloomer’s fluid travels in the opposite direction of the noise (col. 1, ll. 46–47), it cannot have the same velocity because velocity includes a directional component. Even if “organized” is a term of degree as the Examiner suggests (Ans. 10), the Examiner provides no scientific evidence or technical reasoning to explain why Bloomer’s noise has any type of “vortical structure.” The Examiner’s proposed claim construction is clearly unreasonable and the Examiner’s rejection under § 102 cannot be sustained.

The rejection under 35 U.S.C. § 103(a) is reversed.

The Examiner’s rejection under § 103(a) is premised on the notion that it would have been obvious to incorporate Bloomer’s resonator into Gobert, in place of Gobert’s noise suppressing nozzle arrangement 30, such that fluid would flow through Bloomer’s resonator in a direction opposite to that taught in Bloomer. Ans. 6–7, 11. The Examiner asserts one skilled in the art would understand Bloomer’s resonator should be connected in this direction so as to point to the source of the noise in Gobert’s device, supercharger 5. Ans. 11. Appellants contend that there is no evidence of record to suggest directing fluid through Bloomer’s resonator in a direction opposite to that taught by Bloomer. App. Br. 16–17, 19.

Generally, for a combination to be obvious to one skilled in the art there must be at least a reasonable expectation that the combination would successfully yield a functioning device. *See In re O’Farrell*, 853 F.2d 894,

903–04 (Fed. Cir. 1988). Whether there is a reasonable expectation of success is a question of fact. *Medichem S.A. v. Rolabo S.L.*, 437 F.3d 1157, 1165–66 (Fed. Cir. 2006). Neither the Examiner nor Appellants have introduced any evidence or technical reasoning to demonstrate why Bloomer’s device may or may not work with the air flow reversed. This is an important fact in light of which the determination of obviousness must be made. At most, the issue is in equipoise. As the Examiner bears the burden of establishing patentability, the Examiner’s rejection cannot be sustained on the record before us. *See In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967) (“[T]he precise language of 35 U.S.C. § 102 that ‘(a) person shall be entitled to a patent unless, ‘concerning novelty and unobviousness,’ clearly places a burden of proof on the Patent Office which requires it to produce the factual basis for its rejection of an application under sections 102 and 103.”)

DECISION

The Examiner’s rejections are reversed.

REVERSED

Klh