UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WEN-SHI HUANG,
KUO-CHENG LIN, LI-KUANG TAN,
TSUNG-YU LEI, and WEN-HA LIU

Appeal 2007-3500
Application 11/332,397
Technology Center 3700

Decided: December 14, 2007

Before BRADLEY R. GARRIS, CHARLES F. WARREN, and CATHERINE Q. TIMM, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1-15. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

I. BACKGROUND

The invention relates to a cooling fan. Claim 5 is illustrative of the subject matter on appeal:

> 5. A cooling fan, comprising:
>
> a plurality of blades; and
>
> a frame for receiving the blades therein, wherein the frame comprises at least one air-guiding part directly formed on a periphery of the frame for smoothly introducing air into the frame, and a height of the frame is reduced to an extent for exposing the blades so as to allow air to enter into the frame via a top portion and a peripheral portion of the blades to improve air introduction and heat dissipation efficiency of the cooling fan.

Appellants request review of the Examiner's rejection of claims 1-15 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Starnes, Jr. et al. (US 5,407,324 issued Apr. 18, 1995).

II. DISCUSSION

Appellants direct their arguments to claims 1 and 5, with the issue to be addressed being the same for both. Appellants advance a separate argument for claim 14. We focus on claims 1 and 5 first.

Claims 1 and 5

The Examiner finds that the outer cylindrical surface of spacer 64 of Starnes is an air-guiding part for smoothly introducing air into the frame (Final Office Action 2; Starnes, Fig. 3B).

Appellants contend that Starnes' spacer 64 is not an air-guiding part for smoothly introducing air into the frame as recited in both claims 1 and 5 because spacer 64 contains recessed ledges 70 that can disturb the air flowing into the frame (Br. 6).

The Examiner responds that, while the ledges 70 may affect the air-flow somewhat, based on the relative size of the outer cylindrical surface of the spacer 64 compared to the size of the void defined in part by the ledge, the airflow would not be rendered "un-smooth" by the voids (Answer 4).

The dispositive issue on appeal arising from the contentions of Appellants and the Examiner is: Does the claim language "air-guiding part … for smoothly introducing air into the frame" encompass the spacer construction of Starnes?

A preponderance of the evidence of record supports the following Findings of Facts (FF):

1. According to Appellants' Specification:

> "[e]ach of the air-guiding parts 205 has its outer peripheral surface being optimally curve-shaped in compliance with a moving direction of airflow, such that through the rotation of the blades 203 received within the frame 201, air can be quickly and smoothly sucked into the frame 201 along the curve-shaped outer peripheral surfaces of the air-guiding parts 205 to thereby generate desirable airflow effect and reduce the noise of vibration during the operation process."

(Specification 5:4-9).

2. Starnes' spacers 64 cooperate to form a generally curve-shaped cylindrical outer surface (Starnes, Figs. 3A and B). The cylindrical outer surface includes recesses due to the presence of depressions 66

and ledges 70 in the spacer members 64 (Starnes, Fig. 5; col. 3, ll. 64-68).

3. The recesses horizontally align with the plates 58. The smooth curved surfaces of the spacers align with the side airflow openings 60 (Starnes, Figs. 2, 3A, and 3B).

"[A]s an initial matter, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification." *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

"To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). But the structure described in the reference need not be the structure illustrated or disclosed in Appellants' Specification, focus must remain on what the claim encompasses. *See Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983) ("The law of anticipation does not require that the reference 'teach' what the subject patent teaches. Assuming that a reference is properly 'prior art,' it is only necessary that the claims under attack, as construed by the court, 'read on' something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or 'fully met' by it.").

Applying the preceding legal principles to the above Factual Findings, we determine that the Examiner has established that the structure of Starnes anticipates what is claimed.

Appellants' Specification does not specify any particular curved-shape as providing the required smooth introduction of air, the Specification merely calls for an "optimally" curve-shaped surface "in compliance with a moving direction of airflow" (FF 1). While the spacers 64 of Starnes have recesses in alignment with plates 58 (FF 2-3), the portion of the spacers 64 that lead to the air inlet openings 60 are smooth and curved-shaped (FF 3). This curve is in compliance with the moving direction of airflow as the air moves into the openings, and it is reasonable to conclude that this smooth curved surface would result in smoothly introducing air into the frame as claimed. On this basis, the burden has shifted to Appellants to show that the spacer structure of Starnes is not, in fact, capable of functioning as claimed. *See In re Ludtke*, 441 F.2d 660, 663-64 (CCPA 1971) (*quoting In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971) ("where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on."). Appellants provide no evidence that the curved outer surfaces of Starnes' spacers is not capable of functioning as claimed.

We determine that the claim language "air-guiding part … for smoothly introducing air into the frame" encompasses the spacer construction of Starnes. Appellants have not shown that the Examiner reversibly erred in rejecting claims 1-13 and 15.

Claim 14

The issue arising from the contentions of Appellants and the Examiner arising with regard to claim 14 is: Does the language of this claim ("frame integrally formed with the cover to form a single piece") encompass the frame (base member 38) and snap fitted cover assembly (plastic plate members 58) of Starnes?

We answer this question in the affirmative.

The answer becomes clear once the breath of the claim is considered in light of the broadest reasonable interpretation of the claim consistent with the Specification. *See Morris*, 127 F.3d at 1054.

The Specification provides no definition and very little guidance on the meaning of the claim terms. The only discussion of integrally forming is found on page 7. Here, it is stated that "[t]he cooling fan 200 of the above embodiments can be fabricated by screwing the frame 201 and the cover 206 together; alternatively, the frame 201 and the cover 206 may be integrally formed through injection molding." (Specification 7:7-9). There is no discussion of what "a single piece" means.

It is well understood that, in the absence of a specific limiting definition in the Specification, an integrally formed structural part can be made of multiple pieces that, when assembled, form a single unit. *See Morris*, 127 F.3d at 1055-56 (absent express definition in the specification, it is reasonable to interpret "integral" to cover more than a unitary construction), and *In re Hotte*, 475 F.2d 644, 647 (CCPA 1973) ("'integral' is sufficiently broad to embrace constructions united by such means as fastening and welding."). Moreover, a broad, but reasonable, construction of "piece" is "a separate or limited portion or quantity of something."

Dictionary.com Unabridged (v 1.1). Random House, Inc. (accessed: December 06, 2007). The word "single" simply means one. "Therefore, "a single piece" of something is one piece of it: There is no requirement in these words that the piece be unitary in construction. For instance, here, the cooling fan when installed in a computer can be identified as is a "single piece" of that computer.

The claim is simply not as narrow in scope as assumed by Appellants: The claim encompasses the snap-fitted cooling fan of Starnes. We determine that Appellants have not identified a reversible error in the Examiner's rejection of claim 14.

III. DECISION

The decision of the Examiner is affirmed.

IV. TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tf/ls

BIRCH, STEWART, KOLASCH & BIRCH
P.O. BOX 747
FALLS CHURCH, VA 22040-0747