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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/346,234	02/03/2006	Juhani Vilhunen	3502-1098	1581
466	7590	02/19/2013	EXAMINER	
YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314			GRAVINI, STEPHEN MICHAEL	
			ART UNIT	PAPER NUMBER
			3744	
			NOTIFICATION DATE	DELIVERY MODE
			02/19/2013	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JUHANI VILHUNEN

Appeal 2010-010715
Application 11/346,234
Technology Center 3700

Before: JENNIFER D. BAHR, JOHN C. KERINS, and
STEFAN STAICOVICI, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Juhani Vilhunen (Appellant) appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-19. Although both the Examiner and Appellant classify claim 19 as pending and rejected (App. Br. 1; Ans. 2; Fin. Rej. 1), neither the Examiner nor Appellant identifies any pending rejection of claim 19. Thus, this appeal involves only claims 1-18.¹ We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

The Claimed Subject Matter

Claim 1, reproduced below, is illustrative of the claimed subject matter.

1. A flat surface dryer (1), comprising a sealed targeting box (2) with its replacement and exhaust air ports (12, 31; 20), and an air fan (3), the flat surface dryer (1) being an air circulating flat surface dryer, including means (19, 21, 28, 30) for regulating the amounts of replacement air and exhaust air with respect to the total amount of air circulated by the air fan (3), and means for sealing the targeting box against a flat surface to be dried.

Evidence

The Examiner relied on the following evidence in rejecting the claims on appeal:

Hatakenaka	US 4,561,800	Dec. 31, 1985
Gardner	US 4,571,849	Feb. 25, 1986
Paterson	US 6,845,570 B2	Jan. 25, 2005

¹ We leave it to the Examiner to clarify the status of claim 19 upon return of jurisdiction to the Examiner.

Rejections

Appellant requests our review of the following rejections by the Examiner:

- I. claims 10-13 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention;
- II. claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over Gardner and Paterson; and
- III. claims 14-18 under 35 U.S.C. § 103(a) as being unpatentable over Hatakenaka and Paterson.

OPINION

Rejection I – indefiniteness

The Examiner correctly determined that the limitation “means for regulating rotational speed of the air fan” in claim 10 is a means-plus-function limitation as provided by 35 U.S.C. § 112, sixth paragraph. Ans. 4.

The sixth paragraph of 35 U.S.C. § 112 states:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

As our reviewing court stated in *In re Dossel*, 115 F.3d 942, 946 (Fed. Cir. 1997) (*quoting In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994)),

[a]lthough paragraph six statutorily provides that one may use means-plus-function language in a claim, one is still subject to the requirement that a claim "particularly point out and distinctly claim" the invention. Therefore, if one employs means-plus-function language in a claim, one must set forth in

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the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.

In order to satisfy the requirement to “particularly point out and distinctly claim,” the Specification must disclose “[s]ufficient structure [to] ‘permit one of ordinary skill in the art to know and understand what structure corresponds to the means limitation’ so that he may ‘perceive the bounds of the invention.’” *In re Aoyama*, 656 F.3d 1293, 1298 (Fed. Cir. 2011) (quoting *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1340-41 (Fed. Cir. 2008)).

Appellant points to the distributing box 4 and the throttle 21 as the structure disclosed in the Specification for performing the function of regulating rotational speed of the air fan. Reply Br. 4-5. However, while Appellant’s Specification discloses that the distributing box 4 has therein “all necessary electric/regulating devices, e.g.[,] for regulating a heating element/elements 5” (Spec., p. 4, ll. 29-31), the Specification does not specifically describe the distributing box as including regulating devices for regulating fan speed. Appellant’s Specification also describes monitoring and adjusting circulation air temperature by varying the heating element setups (Spec, p. 5, ll. 28-32), but, once again, makes no mention of varying or regulating fan speed. Likewise, Appellant’s Specification describes adjusting the exhaust port or exhaust passage opening 20 “by means of a mechanical/electrically operated throttle 21” to regulate the rate of air discharged through the exhaust port, and hence the corresponding rate of supply of replacement air through the opening 12 (Spec., p. 7, ll. 10-18), but

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fails to describe any connection between the throttle position and the fan speed.

In short, Appellant does not point to, and we do not find, any description in Appellant's Specification of structure for regulating rotational speed of the air fan. Thus, Appellant fails to set forth an adequate disclosure showing what is meant by "means for regulating rotational speed of the air fan" in claim 10, thereby in effect failing to particularly point out and distinctly claim the invention as required by the second paragraph of section 112. *See* Ans. 5-6. We sustain the rejection of claim 10 and of its dependent claims 11-13 under 35 U.S.C. § 112, second paragraph.

Rejection II - obviousness based on Gardner and Paterson

The Examiner found that Gardner discloses the invention of claim 1, with the exception of the claimed means for sealing. Ans. 8. The Examiner found that Paterson discloses a sealing means in another dryer and determined it would have been obvious to provide Gardner's dryer "with a seal for the purpose of optimizing energy usage in a drying environment, thereby minimizing cost and increasing efficiency." *Id.*

Gardner's fan blows a downdraft of air through an aperture 16 and across the underside of the tray 12 toward the annular gap 13. Col. 3, ll. 25-28. The downdraft will blow any ground-lying liquid toward the annular gap, where it will be drawn up into the machine and deposited into the chamber defined by parts 12, 17, and 18. Col. 3, ll. 36-41.

Gardner's machine creates "no appreciable horizontal 'blowout' of air about the machine's periphery," because the fan draws its intake air from the annular gap 13. Col. 5, ll. 4-7. Thus, the liquid over which the machine moves will not be blown onto the machine operator or nearby persons. Col. 5, ll. 8-10. Moreover, according to Gardner, "it is *not necessary to use any*

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form of flexible skirt to try to contain the cushion of air on which the machine hovers. Such skirts are notoriously expensive and easily damaged when used on more conventional forms of hovering craft.” Col. 5, ll. 10-14 (emphasis added).

Consequently, Gardner suggests that adding a skirt or similar structure to seal the machine to the surface to be dried would make the machine more costly and subject to damage without affording any appreciable benefit or efficiency. The Examiner proffers no evidence or technical reasoning to support the assertion that adding a seal to Gardner’s machine would optimize energy usage or otherwise reduce cost. Thus, the Examiner’s articulated reason for modifying Gardner to add a seal lacks rational underpinnings. *See App. Br. 7-8 (arguing modifying Gardner to include the resilient seal of Paterson would not have been obvious in view of Gardner’s teachings at column 5, lines 10-14).*

While apparently not relying on such finding to support the rejection, the Examiner asserts that “Gardner teaches a means for sealing because the air flow of that teaching forms a sealing means such that air forms a seal similar to an air curtain found when entering a large store and blower fans keep the air conditioning inside the large store.” Ans. 10. However, the air flow alluded to by the Examiner clearly is not the structure (“sealing 7”) disclosed in Appellant’s Specification for sealing the targeting box against the surface to be dried (Spec., p. 4, ll. 32-34; fig. 1), and the Examiner does not articulate any analysis showing that the air flow of Gardner’s machine performs the claimed function in substantially the same way to achieve

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substantially the same result as the corresponding structure described in the Specification (i.e., the “sealing 7”) so as to be an equivalent thereof.²

For the above reasons, we do not sustain the Examiner’s rejection of claim 1 and its dependent claims 2-13 as unpatentable over Gardner and Paterson.

Rejection III – obviousness based on Hatakenaka and Paterson

The Examiner’s rejection of claims 14-18 is grounded in part on the Examiner’s incorrect finding that Hatakenaka discloses the step of “regulating the ratio of exhaust air and the amount of air circulated by a fan” of claim 14 at column 3, lines 4-44. Ans. 9. This incorrect finding is predicated on an improper claim construction and erroneous findings regarding the disclosure of Hatakenaka.

The Examiner improperly construed claim 14 as reciting ““regulating the ratio’ . . . as an alternative embodiment” to using means for adjusting the size of the supply and/or exhaust port. *See* Ans. 12. The method of claim 14 explicitly requires regulating the ratio of exhaust air and the amount of air circulated by a fan. Claim 14 further specifies that the regulating be performed by one or both of guiding the flow to the exhaust port and using means for adjusting the size of the supply and/or exhaust port.

Moreover, the Examiner erred in finding that Hatakenaka’s movable frames 21 and movable branches 7b “adjust a ratio of air exhausted to the road surface” (Ans. 13). Displacement of Hatakenaka’s movable frames 21

² An equivalent structure under 35 U.S.C. § 112, sixth paragraph “performs the claimed function in substantially the same way to achieve substantially the same result as the corresponding structure described in the specification.” *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1316 (Fed. Cir. 2005) (quoting *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999)).

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and movable branches 7b merely adjusts the width of road surface over which the blowing pores 8 are disposed. *See* col. 3, l. 4 – col. 4, l. 17; *compare* fig. 2 with fig. 3. Such displacement does not alter either the size or number of blowing pores through which the hot air is blown, does not adjust the size of a supply port, and does not adjust the amount of air that passes through the blowing pores. *See* App. Br. 13. Moreover, the air blown through blowing pores 8 is recycled to the apparatus, not exhausted from the heating apparatus (*see* col. 2, l. 63 - col. 3, l. 1; col. 3, ll. 62-65), and thus substantially represents the amount of air circulated by the fan. *See* App. Br. 12-13.

We do not sustain the rejection of claims 14-18 as unpatentable over Hatakenaka and Paterson, because it is predicated on an improper claim construction and erroneous findings regarding the disclosure of Hatakenaka.

DECISION

The Examiner's decision rejecting claims 1-18 is affirmed as to claims 10-13 and reversed as to claims 1-9 and 14-18.

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

AFFIRMED-IN-PART

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