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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------|-------------|----------------------|------------------------|------------------|
| 11/887,392 | 11/08/2007 | Gerhard Pohlmann | 28638U | 4613 |
| 34375 | 7590 | 11/25/2016 | EXAMINER | |
| NATH, GOLDBERG & MEYER | | | WOODWARD, VALERIE LYNN | |
| Joshua Goldberg | | | ART UNIT | |
| 112 South West Street | | | PAPER NUMBER | |
| Alexandria, VA 22314 | | | 3771 | |
| | | | NOTIFICATION DATE | |
| | | | DELIVERY MODE | |
| | | | 11/25/2016 | |
| | | | ELECTRONIC | |

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GERHARD POHLMANN, HORST WINDT,
OLIVER NOLTE, and WOLFGANG KOCH

Appeal 2014-006267
Application 11/887,392
Technology Center 3700

Before JOHN C. KERINS, ANNETTE R. REIMERS, and
JAMES J. MAYBERRY, *Administrative Patent Judges*.

REIMERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Gerhard Pohlmann et al. (Appellants) appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject under 35 U.S.C. § 103(a): (1) claims 1, 2, 4, 6, 7, 13–16, and 37 as unpatentable over Wiking (GB 24,848; pub. Mar. 26, 1914), Patton (US 6,681,767 B1; iss. Jan. 27, 2004), and Odessa (US 2002/0158090 A1; pub. Oct. 31, 2002); (2) claims 8–12 as unpatentable over Wiking, Patton, Odessa, and Haveri (US 6,978,779 B2; iss. Dec. 27, 2005); and (3) claims 27–29 as unpatentable over Wiking, Patton, Odessa, and Hafner (US 2004/0254112 A1; pub. Dec. 16, 2004). Claims 3, 5, 17–

26, and 30–36 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

CLAIMED SUBJECT MATTER

The claimed subject matter relates to devices “for dosing and dry nebulization of nebulizable material.” Spec. 1, Figs. 3, 4.¹ Claims 1 and 37 are independent.

Claim 1 is illustrative of the claimed subject matter and recites:

A device for dosing and dry nebulization of nebulizable material, comprising:

a nebulization channel connected to a source of compressed carrier gas;

a valve configured to send a carrier gas pressure pulse into the nebulization channel;

a reservoir above and open only towards the nebulization channel, the reservoir configured for receiving the nebulizable material and connected to the nebulization channel such that the reservoir is gas-tight with respect to an external environment;

a conical dosing chamber separate from and connecting to the reservoir; and

a capillary tube connecting the valve to the nebulization channel, the capillary tube having an outlet in the nebulization channel in an area under the connection between the reservoir and the nebulization channel, wherein

an inner diameter of the capillary tube is smaller than an inner diameter of the nebulization channel, such that

¹ Appellants’ Specification does not provide line or paragraph numbering, and accordingly, reference will only be made to the page number.

upon release of the carrier gas pressure pulse the capillary tube and the nebulization channel form a jet pump flowing the carrier gas past the connection between the reservoir and the nebulization channel and generate an underpressure in the reservoir, and wherein

when the valve is closed, a pressure compensation takes place by carrier gas flowing back to the reservoir.

ANALYSIS

Obviousness over Wiking, Patton, and Odessa

Claims 1, 2, 4, 6, 7, 13–16, and 37

Independent claim 1 recites, in relevant part, a device including a reservoir and a valve “configured to send a carrier gas pressure pulse into [a] nebulization channel,” “wherein when the valve is closed, a pressure compensation takes place by carrier gas flowing back to the reservoir.” Br.

19, Claims App. The Examiner finds:

The modified device of Wiking discloses that when the valve e (Wiking, Fig. 1) is closed, a pressure compensation takes place by carrier gas flowing back to the reservoir g (The device is structurally equivalent to the claimed invention and is capable of performing this function as there appears to be no structure present which would prevent this action from taking place. For example, if the pressure outside the device is greater than the pressure inside the device, a pressure compensation will inherently take place causing gas to flow back into the channel and into the reservoir).

Final Act. 4; *see also* Ans. 5–6.

Appellants contend:

[T]he structure of the device as recited in the present claims leads to an effect (which is recited in claims 1 and 37) that is not shown or inferred in either Wiking or Patton, namely “when the valve is closed, a pressure compensation takes place by carrier gas flowing back to the reservoir.” On page 4 of the Office Action,

the Examiner states that “(The device [of Wiking] is structurally equivalent to the claimed invention and is capable of performing this function [the pressure compensation] as there appears to be no structure present which would prevent this from taking place ...).” Appellant[s] strenuously disagree[] with this characterization of Wiking . . . the jet pump [of the subject invention] forms an underpressure in the reservoir, while Wiking relies on an overpressure in the reservoir.

Br. 14–15; *see also id.* at 9–10, 12. Appellants further contend that Wiking discloses pressure compensation by “[g]as flowing out of the reservoir,” which is in contrast to the subject invention’s recitation of pressure compensation by “[g]as flowing into of the reservoir.” *Id.* at 12; *see also id.* at 19, Claims App.

Wiking discloses:

On the compression stroke of the piston *b*[,] the air is pressed through the valve *e* into the chamber *h* and the nozzle *d* and on account of the constricted orifice of same, the air is compressed to a suitable pressure, thus causing a portion of the air to be injected into the receptacle *g* through the mass of the powder and to give the same a whirling action (see the arrows in the Fig. 1). Thus a pressure is created also in the receptacle. When the piston *b* has reached the end of its compression stroke [i.e., at the beginning of the suction stroke] the flow of air from the pump is interrupted and a quantity of powder is carried out of the receptacle *g* into the chamber *h* by means of the higher pressure left in the receptacle.

Wiking, 1:44 – 2:9, Fig. 1; *see also id.* at 1:20–23, Fig. 2. Wiking further discloses: (1) “Between the pump barrel *a* and the nozzle *d* a valve *e* is arranged which during the compression stroke automatically opens towards the nozzle but *during the suction stroke closes under the influence of the spring *f**” (Wiking, 1:34–36 (emphasis added), Figs. 1, 2); (2) “During the

whole suction stroke of the piston *b*, the valve *e* remains closed under the influence of the spring *f* and the vacuum created in the pump barrel” (*id.* at 2:10–12 (emphasis added)); and (3) “During the *suction stroke* of the piston [i.e., when valve *e* is closed] the air pressure *left in the receptacle* is adapted to eject a portion of the powder into a chamber outside the pump cylinder from whence it is expelled through the nozzle by the next compression stroke” (*id.* at 1:20–23 (emphasis added), Fig. 2).

In other words, Wiking discloses that during the compression stroke (i.e., when valve *e* is open) a portion of the carrier gas pressure pulse is injected into receptacle *g* and creates a *positive pressure* within the receptacle. Further, the positive pressure generated within receptacle *g* (i.e., the higher pressure left in the receptacle) forces powder out of the receptacle upon completion of the compression stroke (i.e., at the beginning of the suction stroke when valve *e* is closed). *See* Br. 10. As such, based on the foregoing, we agree with Appellants, “Wiking teaches the use of an overpressure to move the powder and there is no teaching of a pressure compensation taking place by carrier gas flowing back to the reservoir when the valve is closed.” *See id.* Accordingly, the Examiner fails to establish by a preponderance of the evidence that the combined teachings of Wiking, Patton, and Odessa disclose the device of claim 1. Independent claim 37 calls for a device including a similar limitation as discussed above for claim 1. *See* Br. 22–23, Claims App. The Examiner relies on the same unsupported findings and conclusions for claim 37 as for claim 1. *See* Final Act. 2–4, 6. Thus, the Examiner’s findings and conclusions with respect to Wiking are deficient for claim 37 as well.

Accordingly, we do not sustain the Examiner's rejection of independent claim 1 and its dependent claims 2, 4, 6, 7, and 13–16, and independent claim 37 as unpatentable over Wiking, Patton, and Odessa.

*Obviousness over Wiking, Patton, Odessa and
either Haveri or Hafner*

Claims 8–12 and 27–29

Claims 8–12 and 27–29 depend either directly or indirectly from claim 1. *See* Br. 20–22, Claims App. The Examiner relies on the same unsupported findings and conclusions for claims 8–12 and 27–29 as discussed above for claim 1. *See* Final Act. 6–8. The Examiner does not rely on Haveri or Hafner to remedy these deficiencies. Thus, the Examiner's findings and conclusions with respect to Wiking are deficient for claims 8–12 and 27–29 as well.

Accordingly, for reasons similar to those discussed above for claim 1, we do not sustain the Examiner's rejections of dependent claims 8–12 as unpatentable over Wiking, Patton, Odessa, and Haveri or dependent claims 27–29 as unpatentable over Wiking, Patton, Odessa, and Hafner.

DECISION

We REVERSE the decision of the Examiner to reject claims 1, 2, 4, 6–16, 27–29, and 37.

REVERSED