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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/405.688	02/27/2012	Michael PRITCHARD	13300/23251	5175
25693	7590	11/02/2016	EXAMINER	
ANDREWS KURTH KENYON LLP 1801 PAGE MILL ROAD Suite 210 PALO ALTO, CA 94304-1216			MENON, KRISHNAN S	
			ART UNIT	PAPER NUMBER
			1777	
			NOTIFICATION DATE	DELIVERY MODE
			11/02/2016	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL PRITCHARD

Appeal 2014-008734
Application 13/405,688
Technology Center 1700

Before JACQUELINE WRIGHT BONILLA, GEORGE C. BEST and
JEFFREY R. SNAY, *Administrative Patent Judges*.

SNAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant, Michael Pritchard, appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1, 2, 4–6, and 8–16. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

BACKGROUND

The subject matter involved in this appeal relates to methods of dispensing a liquid which, according to Appellant, operate independently of

the orientation of the dispensing device. Spec 26 (Abstract).¹ Claims 1 and 10 illustrate the subject matter on appeal and are reproduced from the Claims Appendix of the Appeal Brief as follows:

1. A method of dispensing liquid from a fluid delivery device comprising a single length of hollow hydrophilic tubular membrane positioned within the fluid delivery device and a spray head coupled to the dip tube, the dip tube having a wall with pores that are sized as a function of viscosity of the liquid being dispensed and a surface area of the tubular membrane, the method comprising:

applying a pressure differential through the pores in the wall of the hollow hydrophilic tubular membrane; and

passing liquid within the fluid delivery device through the wall of the hollow hydrophilic tubular membrane and thereby to the spray head,

wherein the membrane is sized to extend across substantially a length of the fluid delivery device,

thereby enabling dispensing of the liquid substantially independent of an orientation of the fluid delivery device.

10. A method of dispensing liquid from a fluid delivery device comprising a dip tube consisting of a single hollow hydrophilic tubular membrane positioned within the fluid delivery device and a spray head coupled to the dip tube, the dip tube having a wall with pores that are sized as a function of viscosity of the liquid being dispensed and a surface area of the tubular membrane, the method comprising:

applying a pressure differential through the pores in the wall of the single hollow hydrophilic tubular membrane; and

passing liquid within the fluid delivery device through the wall of the single hollow hydrophilic tubular membrane and thereby to the spray head,

wherein the membrane is sized to extend across substantially a length of the fluid delivery device, and

¹ We cite to the Specification (“Spec.”) filed Feb. 27, 2012; Final Office Action (“Final Act.”) dated Nov. 22, 2013; Examiner’s Answer (“Ans.”); and Appellant’s Appeal Brief (“App. Br.”) and Reply Brief (“Reply Br.”).

wherein the liquid can be dispensed substantially independent of an orientation of the fluid delivery device.

REJECTIONS

The Examiner maintained the following grounds of rejection:²

- I. Claims 1, 2, 4–6 and 8–16³ stand rejected under 35 U.S.C. § 112, 2d ¶, as indefinite.
- II. Claims 1, 4, 5, 6, 9, 10, 12–14 and 16 stand rejected under 35 U.S.C. § 102(b) or 103(a) as unpatentable over Nohren.⁴
- III. Claims 1, 2, 4–6 and 8–16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Mir⁵ and Nohren.

DISCUSSION

I

With regard to Rejection I, the Examiner determined that Appellant's recitation of "the dip tube" lacks antecedent basis in claim 1. Final Act. 2. Particularly, claim 1 recites "a spray head coupled to *the* dip tube," (emphasis added). Appellant does not dispute that finding, but argues that one of ordinary skill in the art would understand that the "dip tube" is the hollow "tubular membrane" that also is recited in claim 1. App. Br. 11. The problem with that argument is that claim 1 separately recites a "dip tube"

² Ans. 2; Final Act. 2–7. Additional grounds of rejection under 35 U.S.C. § 112, 1st ¶, were withdrawn. Ans. 2.

³ Appellant does not dispute the Examiner's corrected identification of claims subject to this ground of rejection. *Compare* Reply Br. 3–4 *with* Ans. 5 (explaining that the Final Action mistakenly listed claim 11 rather than claim 10 in the claims identified as subject to this ground of rejection).

⁴ US 2003/0164333 A1, published Sep. 4, 2003 ("Nohren").

⁵ US 2007/0151924 A1, published Jul. 5, 2007 ("Mir").

and a “tubular membrane,” and defines features of the dip tube relative to the tubular membrane. *See* claim 1 (“the dip tube having a wall with pores that are sized as a function of . . . a surface area of the tubular membrane”). Thus, Appellant’s contention that the dip tube and the tubular membrane are one and the same cannot be reconciled with the express language of the claim. Because Appellant presents no alternative interpretation of claim 1 that would give definite meaning to the phrase, “the dip tube,” we agree that claim 1 is indefinite. Accordingly, we sustain Rejection I as applied to claim 1 and each of claims 2, 4–6, 8, and 9 depending therefrom.

Claim 10 recites “a dip tube consisting of a single hollow hydrophilic tubular membrane” and therefore does not present the same defect found in claim 1. Rejection I as applied to claim 10 was premised on a finding that the recited tubular membrane requires an open end, like a straw, based on a statement in the Specification that, “[i]n some embodiments, the membranes are in the form of hollow tubes and simply replace the conventional extraction straws found in prior art devices.” Final Act. 2–3 (quoting Spec. 22). According to the Examiner, an open ended tubular membrane would render the claim inoperable. *Id.* at 3. Irrespective of whether the claim encompasses an open ended membrane or whether an open ended membrane would be operable in the claimed method, we are persuaded by Appellant’s argument that “the specification does not state that the membrane is ‘like’ a straw. The specification states that the membrane replaces a straw.” App. Br. 12. Thus, we agree that the indefiniteness rejection as applied to claim 10 was based on an incorrect interpretation of the claim premised on an erroneous finding relative to the Specification. Accordingly, we do not

sustain Rejection I as applied to claim 10 and each of claims 11–16 depending therefrom.

II

With regard to Rejection II, the Examiner captions the rejection as including an alternative ground under 35 U.S.C. § 103, but fails to present any finding or reasoning relevant to an obviousness determination. *See* Final Act. 5–6; Ans. 5–6. Thus, we review Rejection II solely under 35 U.S.C. § 102.

In support of the anticipation determination, the Examiner relied on Nohren’s Figures 1 and 4 and found that the carbon tube depicted in those figures satisfied the claimed recitation of a “single tubular membrane.” Final Act. 5 (“Nohren teaches a method of filtering water using a container with an internally extending filter of hollow porous carbon tube membrane which forms the ‘dip tube’.”); Ans. 5–6 (“Claims were clearly and specifically rejected over the carbon tube as the ‘single tubular membrane’ and figures 1 and 4 as the embodiments considered.”). However, as Appellant correctly states, Reply Br. 3, Nohren’s carbon filter is not a membrane. Rather, Nohren identifies the relied upon carbon filter as a “monolithic carbon pre-filter.” Nohren at ¶ 13. The Examiner’s characterization of such a monolithic carbon filter as a tubular membrane is unsupported by the evidence of record.

For that reason, we do not sustain Rejection II.

III

With regard to Rejection III, the Examiner acknowledged that “Mir does not explicitly teach a spray head.” Final Act. 7. To bridge that gap

between Mir and the claims on appeal, the Examiner stated that the outlet port in Mir can be “made into a spray head, which would have been obvious to one of ordinary skill, since applicant’s invention is simply substituting a hollow tube membrane for a straw or dip tube in a prior art device, such as any spray bottles.” Final Act. 7. Appellant argues that the Examiner failed to articulate a reason why one of ordinary skill would “put a spray head anywhere in the Mir device.” App. Br. 19. We agree.

Mir discloses a method and apparatus for the filtration of biological samples. Mir (Title). Particularly, Mir provides “sample preparation membrane separation modules” for performing “single-pass tangential flow filtration.” *Id.* at ¶4. Particular applications involve “separation and purification in the manufacture and research of biomolecules.” *Id.* at ¶ 6. The Examiner’s sole reasoning for modifying Mir’s biomolecule separation device to include a spray head lacks any relation to Mir, and appears to be based solely on Appellant’s disclosure of a spray device. As such, we find the Examiner’s reasoning in support of the obviousness rejection to be conclusory. For that reason, we do not sustain Rejection III.

DECISION

The Examiner’s decision rejecting claims 1, 2, 4–6, 8, and 9 as indefinite under 35 U.S.C. § 112, 2d ¶, is affirmed.

The Examiner’s decision rejecting claims 10–16 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136.

AFFIRMED-IN-PART