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HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
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(54) Title: DISPOSABLE CONTAINER FOR AIR HYDRATION

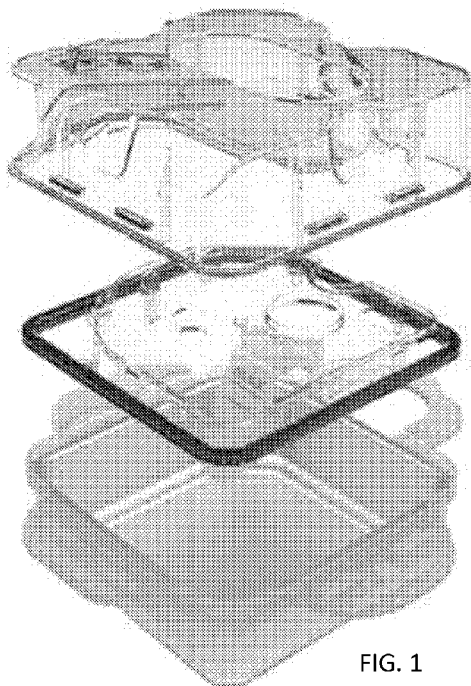


FIG. 1

(57) Abstract: The present technology relates to a device and method to provide distilled water in pre-filled, disposable containers for use with humidifiers in assisted breathing units, such as continuous positive airway pressure (CPAP) devices. The technology also relates to methods for delivery of medications and inhalational and/or aromatic therapies through heated hydration chambers in CPAP devices and/or through nebulizers to be used to hydrate air in conjunction with CPAP devices. The present technology further relates to convenient multi-packs of pre-filled, disposable water containers to be provided in conjunction with CPAP devices.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/71941

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61M 11/00 (2015.01)

CPC - A61M 11/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
CPC: A61M 11/06 IPC(8): A61M 11/00 (2015.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 128/200.21, 200.11, 200.14, 200.16 (keyword limited; terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase; Google Patents; Google

Search Terms Used: nebulizer, humidifier, water, container, bag, reservoir, compartment, bottle, medication, medicament, drug, active, dispos*, ultraviolet, aroma*, scent*, extract%, oil%, essence%, capsule, adaptor, donepezil

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	US 5,558,085 A (RUBSAMEN et al) 24 September 1996 (24.09.1996) col 3, ln 37-39, col 11, ln 15-19, col 21, ln 22-30, col 23, ln 30-42	1-2, 9-10, 12 ----- 14
X ----- Y	US 4,399,080 A (SWANK) 16 August 1983 (16.08.1983) fig 2, col 2, ln 64 to col 3, ln 18, col 3, ln 20-22, col 5, ln 32 to col 6, ln 50	1, 13 ----- 3-8, 11, 14
X ----- Y	US 5,894,841 A (VOGES) 20 April 1999 (20.04.1999) fig 1, col 5, ln 23-25, col 5, ln 48-57, col 6, ln 2-5, col 8, ln 34-36, col 8, ln 39-44	32-33
Y	US 2010/0298375 A1 (ARAI) 25 November 2010 (25.11.2010) abstract, para [0026]	3-5
Y	US 2006/00554166 A1 (KNOCH et al) 16 March 2006 (16.03.2006) abstract, para [0026]	6-8
Y	US 2007/0237500 A1 (WANG) 11 October 2007 (11.10.2007) abstract	11

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

04 May 2015 (04.05.2015)

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Name and mailing address of the ISA/US

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/71941

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.: 21-22 and 27-31
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I: Claims 1-14 and 32-33 directed to a method of treating a subject with a disease or condition.

Group II: Claims 15-20, 23-26 directed to a disposable container.

-----Continued on Supplemental Page-----

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-14, 32-33

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/71941

Continuation of Box III: Observations where unity of invention is lacking

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Special Technical Features

The invention of Group I includes the special technical feature of particular method steps including placing a disposable water container in close proximity to an air intake of an assisted breathing unit; passing air or gas through a flow path having an airstream of the assisted breathing unit wherein vapor and/or droplets from the disposable water container comprising the agent are passed into the air stream, thereby treating the subject, not required in Group II.

Common Technical Features

Groups I and II are generally related as an apparatus (group II) and methods for potential use thereof (group I). The inventions of Groups I-II share the technical features of a disposable water container. The apparatus is known in the prior art, as shown in US 4,399,080 A (SWANK).

Swank discloses a disposable water container (18, 19) adapted for use in conjunction with an assisted breathing unit (10, fig 1, 2, 3, abstract, col 2, ln 64 to col 3, ln 20).

As the common features were known in the art at the time of the invention, they cannot be considered special technical features that would otherwise unify the groups.

Therefore, Groups I-II lack unity under PCT Rule 13 because they do not share a same or corresponding special technical feature.

NOTE: Claims 21-22 and 27-31 have been held unsearchable because they are dependent claims that are not drafted in accordance with the second and third sentences of Rule 6.4(a).