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(54) Title: MULTIFLUID DISPENSING SYSTEM AND METHOD

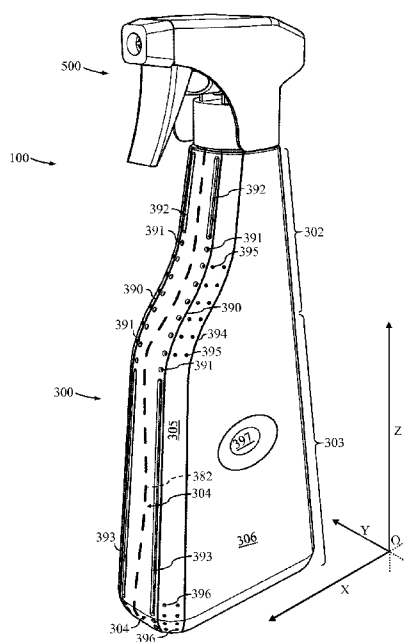


Fig. 1

(57) Abstract: Multifluid dispensing system comprising a receptacle of container in container type and an atomizer. Within the receptacle, between at least two of the component-units is provided a connecting-system that includes at least some of: at least one residual interface; at least one permanent-joint of adhesive or weld type; at least one reinforcing functional-form. The connecting-system preferably extends on the entire height of the receptacle. The parts of the connecting-system are preferably, at least partially, superimposed and contained within an operational-section. Additionally, within the receptacle is provided a partitioning-system that consists of at least one mobile-sector which develops via delamination from an internal component-unit. Within the receptacle is equally provided a compression-system that consists of at least one mobile-sector which also develops via delamination from an internal component-unit. The atomizer is made entirely of plastic, is of multifluid type, and comprises a return-spring having two curved arms, and a precompression valve-system.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER INV. B05B11/00 B29C49/22 B29C49/00 B65D1/02 ADD.		
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) B05B B29C B65D B29B B29L		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2004/069735 A1 (YONEYAMA MASASHI [JP] ET AL) 15 April 2004 (2004-04-15) paragraph [0001] - paragraph [0073]; figures 1-14 -----	1-5,7-11 6,12
X A	DE 10 2010 024980 A1 (GAPLAST GMBH [DE]) 29 December 2011 (2011-12-29) paragraph [0001] - paragraph [0030]; figures 1-3 -----	1-11 12
X A	EP 3 248 895 A1 (KYORAKU CO LTD [JP]) 29 November 2017 (2017-11-29) paragraph [0001] - paragraph [0117]; figures 1-19 -----	1-8 9-12
X A	US 2015/210420 A1 (HOSOKOSHIYAMA HIROSHI [JP]) 30 July 2015 (2015-07-30) paragraph [0002] - paragraph [0006]; figures 12, 13 -----	1-11 12
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* 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 9 April 2020		Date of mailing of the international search report 01/07/2020
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Rente, Tanja

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2019/079574

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.:
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:

see additional sheet

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 an 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.:

1-12

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12

Receptacle of container in container type, corresponding
preform-set for producing and method

2. claims: 13-15

Atomizer for dispensing fluids

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2019/079574

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