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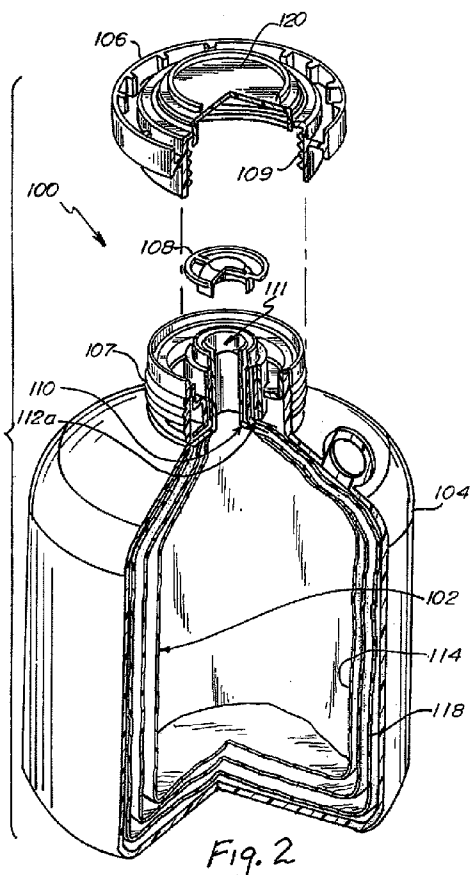
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR DISPENSING FLUIDS



(57) Abstract: A bag-in-bag-in-bottle assembly formed by a flexible dispensing container with a dispensing fitment. The dispensing container is positioned adjacent or sandwiched between one or more flexible pressurization containers having a separate inlet/outlet path through a second fitment. The bag-in-bag assembly can then be placed in a containment vessel with the fitments mounted such that it is accessible on the vessel. A liquid can be extracted from the dispensing container by introducing a fluid into the pressurization container(s) with enough pressure to force the liquid out through the dispensing fitment. A contoured dispensing head may be coupled to the bag-in-bag-in-bottle assembly using a cam actuation arrangement for simultaneously locking the pressurization, vent and fluid extraction couplings. A key code system may be utilized wherein a universal key code ring is modified to enable key coding of the containment vessel for compatibility with only certain dispense heads.

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GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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- *with international search report*
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**(88) Date of publication of the international search report:**

14 May 2009

INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2008/074664

A. CLASSIFICATION OF SUBJECT MATTER  
INV. B65D83/00 B67D5/02

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)  
B65D B67D

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 practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 432 343 A (FREUDENBERG CARL FA [DE]) 19 June 1991 (1991-06-19)	1,5,7,33
Y	column 3, line 10 - line 55; figure 1	2-4,6
X	US 3 240 394 A (MODDERNO JOHN P) 15 March 1966 (1966-03-15)	1,7
X	EP 0 380 348 A (JEDNOTNE ZEMEDELSKE DRUZSTVO [CS]) 1 August 1990 (1990-08-01)	1
Y	figure 1	
Y	WO 2006/133026 A (ADVANCED TECH MATERIALS [US]; KINGERY JOHN R [US]; BRESTOVANSKY DENNIS) 14 December 2006 (2006-12-14)	2-4,6
	paragraph [0143]; figure 1	

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 document 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.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

17 December 2008

Date of mailing of the international search report

10/03/2009

Name and mailing address of the ISA/

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2008/074664

## 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 allsearchable 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.:

1-7, 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.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

## 1. claims: 1-7,33

A dispensing system for dispensing a liquid, comprising: an inner flexible container for containing said liquid and having an outer surface; an outer flexible container substantially surrounding said inner flexible container, said outer flexible container defining a pressurization chamber bounded at least by an inner portion and an outer portion, said inner portion being in contact with said outer surface of said inner flexible container; and a containment vessel having an inner surface that defines an interior chamber, said inner and outer flexible containers being disposed within said interior chamber, said outer portion of said inner flexible container being confined by said containment vessel further comprising a first fitting operably coupled with said inner flexible container and adapted to route said liquid to or from said inner flexible container; and a second fitting operably coupled with said outer flexible container and adapted to route fluid to or from said outer flexible container.

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## 2. claims: 8-11

A method of making a dispensing system for dispensing a liquid, comprising:  
forming an inner flexible container that includes an attaching tab;  
forming a through hole that passes through said attaching tab;  
forming an outer flexible container having a seam allowance;  
arranging said outer flexible container about said inner flexible container so that a first portion of said seam allowance is disposed on a first side of said through hole and a second portion of said seam allowance is disposed on a second side of said through hole;  
arranging said outer flexible container about said inner flexible container so that a first portion of said seam allowance is disposed on a first side of said through hole and a second portion of said seam allowance is disposed on a second side of said through hole and  
attaching said first portion of said seam allowance to said second portion of said seam allowance through said through hole

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## 3. claims: 12-21

A key code system and device for a fluid dispensing assembly

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## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## 4. claims: 22-25

A dispensing system for dispensing a liquid, comprising:  
a containment vessel that defines a footprint;  
a cap body operatively coupled with said containment vessel;  
a cam-actuated dispensing head operatively coupled with said cap body;  
whereby  
said cap body includes diametrically opposed pins that project radially outward from said cap body, and the system further includes an actuator handle pivotally mounted to said cap body, so that  
said actuator handle is within said footprint of said containment vessel when said cam actuated dispensing head is fully engaged with said cap body.

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## 5. claims: 26-27

A dispensing system for dispensing a liquid, comprising:  
an inner flexible container for containing said liquid and having an outer surface,  
said inner flexible container including a first sheet material comprising  
polytetrafluoroethylene, said sheet material having a thickness less than 0.25 millimeters;  
an outer flexible member substantially surrounding said inner flexible container,  
said outer surface of said inner flexible container being substantially sealed by said outer flexible member, said outer flexible member including a second sheet material that is less permeable to gases than said polytetrafluoroethylene and having a thickness less than 0.25 millimeters; and a containment vessel defining an interior chamber, said inner flexible container and said outer flexible member being disposed within said interior chamber and being contained by said containment vessel

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## 6. claims: 28-32

A photolithographic processing system and a method for dispensing photo resist to photolithography equipment

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/074664
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