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<i>B05B 1/30</i> (2006.01)	<i>B05B 7/24</i> (2006.01)
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(72) Inventor; and

(71) Applicant : **BOOTHMAN, Brian S.** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

(74) Agents: **MEDVED, Aleksander** et al.; 3M Center, Office of Intellectual Property Counsel Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

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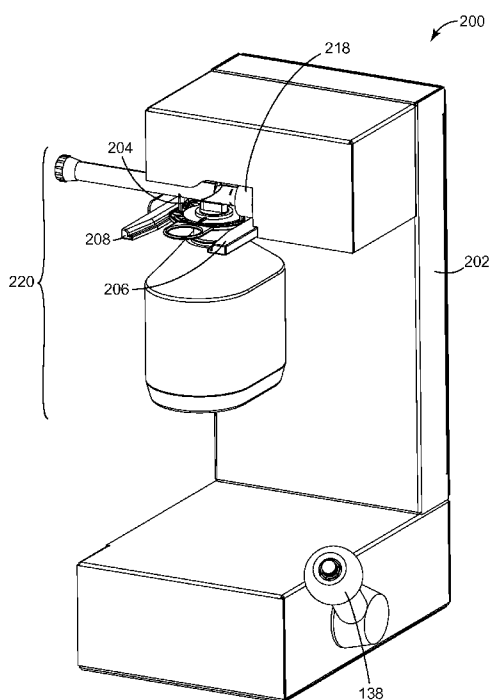
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(71) Applicant: **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

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[Continued on next page]

(54) Title: FLUID TONER DISPENSING APPARATUS, COMPONENTS, AND METHODS



(57) Abstract: This disclosure describes a flow control device comprising: a body comprising a body wall that defines a chamber, the body wall comprising an inlet in fluid communication with the chamber, a work outlet comprising a work outlet flow area in fluid communication with the chamber, and a bleed outlet comprising an unoccluded bleed flow area in fluid communication with the chamber. The flow control device comprises a flow control member adapted to selectively occlude the bleed outlet wherein, in a second position, the flow control member at least partially occludes the bleed outlet to create a second bleed flow area and, in a first position, the flow control member occludes the bleed outlet to a smaller degree than when in the second position to create a first bleed flow area that is greater than the second bleed flow area.

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TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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INTERNATIONAL SEARCH REPORT

International application No PCT/US2013/032000

A. CLASSIFICATION OF SUBJECT MATTER		
INV. B65D83/20	B65D83/42	B65D83/48
B05B1/30	F16K1/12	F16K11/07
B01F13/00	B05B7/04	B05B7/24
		F16K11/16
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 B05B F16K B01F F15B		
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	EP 0 645 570 A1 (CAROMA IND LTD [AU]) 29 March 1995 (1995-03-29) page 3; figure 1 -----	1,3-5,10
X	US 3 341 168 A (TOEPPEN THURSTON H) 12 September 1967 (1967-09-12) figures 1-5 -----	1,3-5,7
X	DE 10 2009 020064 A1 (DUERR SYSTEMS GMBH [DE]) 11 November 2010 (2010-11-11) page 10 - page 11; figures 14a-14c -----	1-3,7
X	WO 2010/118113 A1 (PIRANHA PLASTICS LLC [US]; CENTOFANTE CHARLES A [US]; BOOTHMAN BRIAN S) 14 October 2010 (2010-10-14) the whole document -----	8,11,13
A		6
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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	"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	
"E" earlier application or patent but published on or after the international filing date	"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	
"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)	"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	
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	
"P" document published prior to the international filing date but later than the priority date claimed		
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17 September 2013	01/10/2013	
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INTERNATIONAL SEARCH REPORT

International application No PCT/US2013/032000

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 1 066 263 A (DOEHN FRITZ VON [DE]) 1 July 1913 (1913-07-01) the whole document -----	11-13
X	GB 565 232 A (IDDON BROTHERS LTD; WALTER RYDING) 1 November 1944 (1944-11-01) the whole document -----	9
X	DE 41 31 961 A1 (ENGEL GMBH MASCHBAU [AT]) 2 April 1992 (1992-04-02) the whole document -----	14, 15

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/032000

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.:

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: 1-5, 7, 10

a flow control bleed valve

2. claims: 6, 11, 12

a cap

3. claims: 8, 13

connector comprising an actuator opening or closing a pressure flow.

4. claim: 9

a core controlling two valves

5. claims: 14, 15

a pneumatic or hydraulic coupling mechanism

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2013/032000

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