



(51) International Patent Classification:

A01K 1/10 (2006.01) B65D 1/34 (2006.01)
A01K 15/02 (2006.01)

(21) International Application Number:

PCT/CA2010/001461

(22) International Filing Date:

20 September 2010 (20.09.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0916555.6 21 September 2009 (21.09.2009) GB

(72) Inventor; and

(71) Applicant : **ROCHON, Isabelle** [CA/CA]; 631 ch. du
Petit-Village sud, St-Augustin-de-Desmaures, Québec
G3A 1W7 (CA).

(74) Agents: **BROUILLETTE, Robert** et al.; Brouillette &
Associés/Partners, 1550, Metcalfe Street, Suite 800, Mon-
tréal, Québec H3A 1X6 (CA).

(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, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,
SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

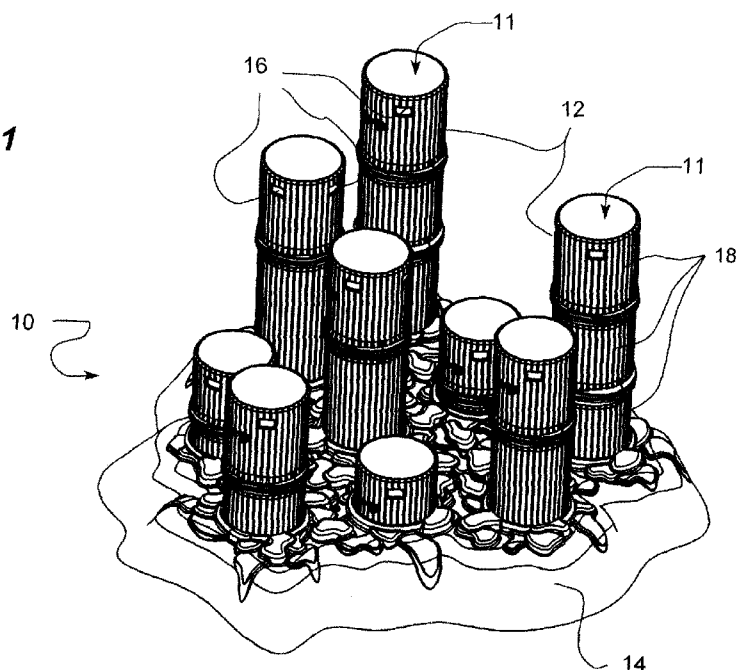
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG,
ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))

(54) Title: COMBINATION PET FOOD TRAY AND ACTIVITY DEVICE

FIG. 1



(57) Abstract: A combination pet food tray and activity device has a plurality of columns removably or fixedly attached to a base. Each column having a top opening into which a pet insert its paw to take the food in the columns. In a preferred embodiment, some of the columns comprise at least one aperture. The length of some of the columns is preferably of different length.

COMBINATION PET FOOD TRAY AND ACTIVITY DEVICE**Cross-Reference to Related Applications**

5

[0001] The present patent application claims the benefits of priority of commonly assigned Patent Application No. GB0916555.6, entitled "Combination cat food tray and activity device" and filed at the United Kingdom Intellectual Property Office on September 21, 2009.

10

Field of the Invention

[0002] The present invention relates generally to pet toys but more particularly to a combination of a pet activity device and food tray.

15

Background of the Invention

[0003] There are many types of pet serving trays. Some such food trays also include some form of stimulating activity for the pet.

20

Summary of the Invention

[0004] The present invention is generally providing a combination pet food tray and activity device comprising a base; and a plurality of columns attached to the base, wherein the
25 columns comprises a top opening.

[0005] The columns may be removably or fixedly attached to the base. In a preferred embodiment, at least one of the columns comprises an aperture. The columns may have
30 varying length.

30

[0006] In a preferred embodiment, the internal surface or a portion of the internal surface of a column is textured.

[0007] A cover may be connected to the top portion of the column to increase the level of difficulty to reach the food in the column. Also, at least one of the columns may comprise a false bottom.

5 [0008] In a preferred embodiment, at least one of the columns is formed by a plurality of stackable elements. The elements comprise a top portion and a bottom portion and these portions are adapted to be removably attached. The elements may have varying length. A false bottom may be installed between two adjacent elements.

10 [0009] In a further embodiment, the present invention is generally providing a combination pet food tray and activity method, the method comprising the step of disposing a base; attaching a plurality of columns on said base, said columns comprising a top opening; and disposing food in at least one of said columns through said top opening. The columns may be formed by stacking a plurality of elements to form columns having different length.

15

[0010] It is a main advantage of this invention to provide for a stimulating source of activity for a pet while being used as a food tray. Creating a challenging activity for pets, more particularly cats, can be beneficial for the pet's mental health.

20 [0011] In an embodiment where the columns are removably connected to the base, it is possible to change the configuration of the food tray to provide a new challenge to the pet. The height of the columns may be modified by combining different elements together.

[0012] The features of the present invention which are believed to be novel are set forth
25 with particularity in the appended claims.

Brief Description of the Drawings

[0013] The above and other objects, features and advantages of the invention will become
30 more readily apparent from the following description, reference being made to the accompanying drawings in which:

[0014] Fig. 1 is a perspective view of the invention.

[0015] Fig. 2 is side view of the invention.

[0016] Fig. 3 is top view of the invention.

5 [0017] Fig. 4 is a perspective view of a column comprising a cover.

[0018] Fig. 5 is a perspective view of a column having a square shape.

[0019] Fig. 6 is a perspective view of a column having a curved profile.

10

[0020] Fig. 7 is a perspective view of a column having a curved profile.

[0021] Fig. 8 is a perspective view of a column having a cover and a curved profile.

15 [0022] Fig. 9 is a perspective view of a column having a false bottom and a textured internal surface.

[0023] Fig. 10 is a cross-section view of a column composed by two elements and having a false bottom.

20

Detailed Description of the Preferred Embodiment

[0024] A novel combination pet food tray and activity device will be described hereinafter. Although the invention is described in terms of specific illustrative embodiment(s), it is to
25 be understood that the embodiment(s) described herein are by way of example only and that the scope of the invention is not intended to be limited thereby.

[0025] A combination pet food tray and activity device 10 has a plurality of columns 12 set over a base 14. The columns 12 have different lengths and are removably attached to the
30 base 14 so that they can be switched around so as to create variety for the pet. It can be seen in Figs. 1 and 2 that some of the columns 12 have one or more apertures 16.

[0026] In a preferred embodiment, a column 12 may be formed by a plurality of elements 18. As illustrated in Figs. 1, 2 and 10, the elements 18 may have different length. The length

of a column 12 depends of the number of elements 18 forming it and of the length of each of the elements 18. It can be seen in Fig. 1 and 2 that the elements 18 may be stacked one above the other. To removably attach the elements to each other, the bottom portion of an element is adapted to be removably attached to the base or to the top portion of another element 18. For example, the bottom portion of an element can be screwed on the top portion of another element. The different elements could also be clipped, or connected with attaching means such as clamp, or other means known in the art. In a still preferred embodiment, the invention may be sold already assembled to form column already assembled and not dismountable. Fig. 10 shows a cross-section view of a column 100 composed by two elements 104 and 106 that are screwed together. A false bottom 102 is installed between the two elements 104 and 106 to modify the internal depth of the columns.

[0027] In the embodiment shown in Figs 1 to 3, the elements have the same cross section but it is to be understood that there could be a plurality of element or column shapes. For example, in a still preferred embodiment, the invention could comprise one column having a square cross-section and a column having a triangular cross-section. The base is consequently adapted to received the different shapes. The columns may be screwed, clipped, press-fitted or otherwise connected to the base, as known in the art. In a further embodiment, the columns or elements may be inserted into openings in the base and the base sits on an enlarged bottom portion, for example, of the columns or elements. Also, the profile of a column is not necessarily continuous, for example, in a preferred embodiment, a column may have a conical shape and still be composed by a plurality of elements.

[0028] The pet, for example a cat, is allowed to enact a behavior similar by having the pet hunt for its food. Firstly, the pet has to smell to detect which column(s) 12 and/or element(s) 18 contains food. There is then the simulated capture of a prey by inserting its paw through the top opening 11 and pushing the food through the aperture 16, or through the opening 11. It is also possible to place pet toys in the columns.

[0029] Once the food bits have passed through the aperture 16, it falls in between the various columns 12 which increases the level of difficulty and thus challenges the pet. The texture of the base 14 helps in trapping the food between the columns 12 by reducing roll offs.

[0030] It is to be noted that, in a further embodiment, the columns may be fixedly attached to the base.

- 5 [0031] Figs. 4 to 9 show other embodiments of the present invention. Fig. 4 shows a column 40 having a rotating cover 46 connected to a pin 44, and a paw shaped aperture 42. With this embodiment, the animal has to tilt the cover 46 to reach the food.

- 10 [0032] Fig. 5 shows a column 50 having a squared cross-section and an aperture 52 having a cloud shape.

- [0033] Fig. 6 shows an embodiment of a column 60 having a curved profile, adding a level of difficulty to reach the food. The embodiment of Fig. 6 comprises two openings 62 having an oval shape.

15

- [0034] The column 70 of Fig. 7 comprises a deviation at its top end. The pet can reach the food through the opening 72 and the aperture 74.

- 20 [0035] Fig. 8 shows column 80 having a cover 82 that needs to be opened by the animal in order for it to reach the food. A spring or a hinge, for example, may be used to connect the cover 82 to the column. It can be seen that the profile of the column 80 is not continuous; the bottom portion and the top portion are smaller than the middle portion. The column 80 portion comprises a paw shaped aperture 80.

- 25 [0036] The column 90 shown in Fig. 9 comprises a false bottom 92. The internal surface of the column 90 is textured (94) to add a level of difficulty to take the food. In another embodiment, only a portion of the internal surface can be textured. The column 90 does not comprise an aperture and the animal has to bring the food up to the opening 96.

- 30 [0037] In a preferred embodiment, only some columns comprise an aperture and the pet has to adapt the method to reach the food with each column.

[0038] There are many other benefits for the pet such as eating smaller quantities at a time which improves digestion.

[0039] Overall, by exercising, a pet is less likely to be bored and depressive.

[0040] While illustrative and presently preferred embodiment(s) of the invention have been
5 described in detail hereinabove, it is to be understood that the inventive concepts may be
otherwise variously embodied and employed and that the appended claims are intended to
be construed to include such variations except insofar as limited by the prior art.

Claims

- 1) A combination pet food tray and activity device comprising:
 - a) a base; and
 - 5 b) a plurality of columns attached to said base, wherein said columns comprise a top opening.
- 2) The device of claim 1, wherein said columns are removably attached to said base.
- 10 3) The device of claim 1, wherein said columns are fixedly attached to said base.
- 4) The device of claim 1, wherein at least one of said columns comprises an aperture.
- 5) The device of claim 1, wherein said columns have varying length.
- 15 6) The device of claim 1, wherein said column(s) comprise an internal surface and wherein at least one of said columns comprise at least a portion of said internal surface that is textured.
- 20 7) The device of claim 1, wherein said column(s) comprise a top portion and wherein a cover is connected to said top portion of said column.
- 8) The device of claim 1, wherein at least one of said column(s) comprises a false bottom.
- 25 9) The device of claim 1, wherein at least one of said columns are formed by a plurality of stackable elements.
- 10) The device of claim 9, wherein said elements comprise a top portion and a bottom portion and wherein said bottom portion and said top portion of said elements are
30 adapted to be removably attached.
- 11) The device of claim 9, wherein said elements have varying length.

- 12) The device of claim 9, wherein a false bottom is installed between two adjacent elements.
- 13) A combination pet food tray and activity method, said method comprising the step of:
- 5 a) disposing a base;
- b) attaching a plurality of columns on said base, said columns comprising a top opening; and
- c) disposing food in at least one of said columns through said top opening.
- 10 14) The method of claim 13, wherein said columns are formed by stacking a plurality of elements to form columns having different length.
- 15 15) The method of claim 13, wherein said columns are removably attached to said base.
- 16) The method of claim 13, wherein said columns are fixedly attached to said base.

* * *

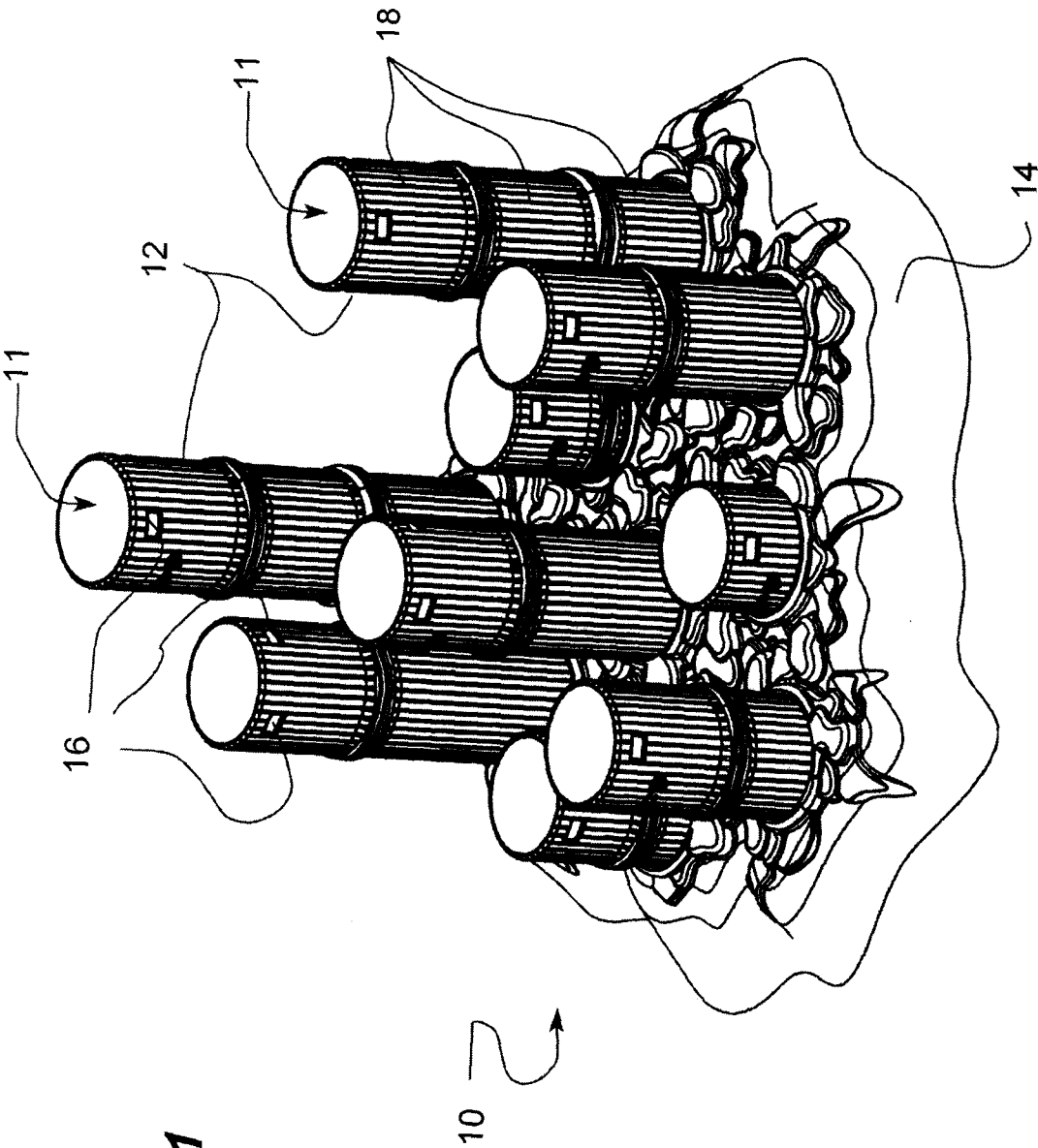


FIG. 2

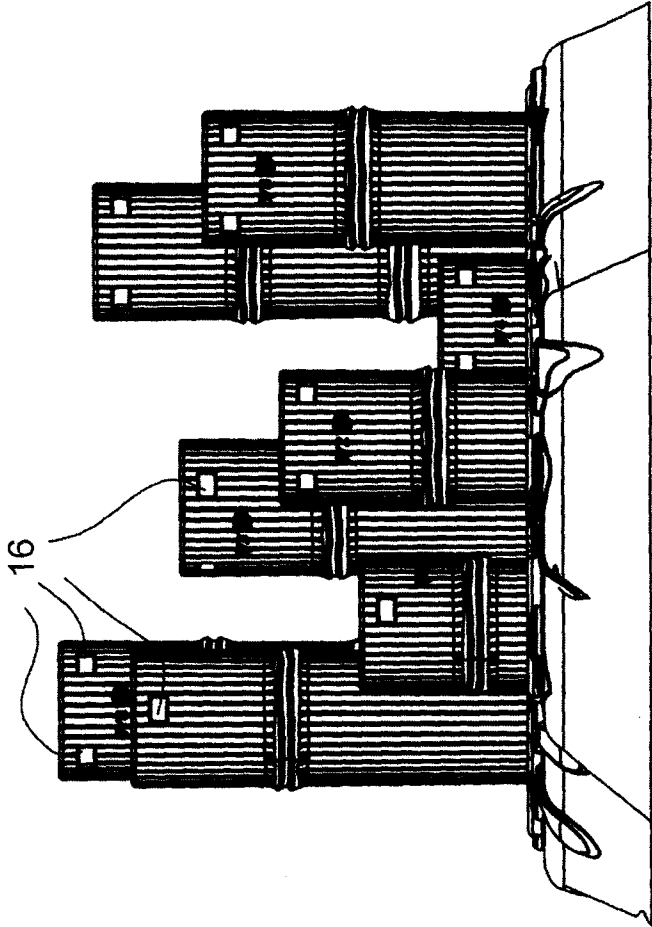
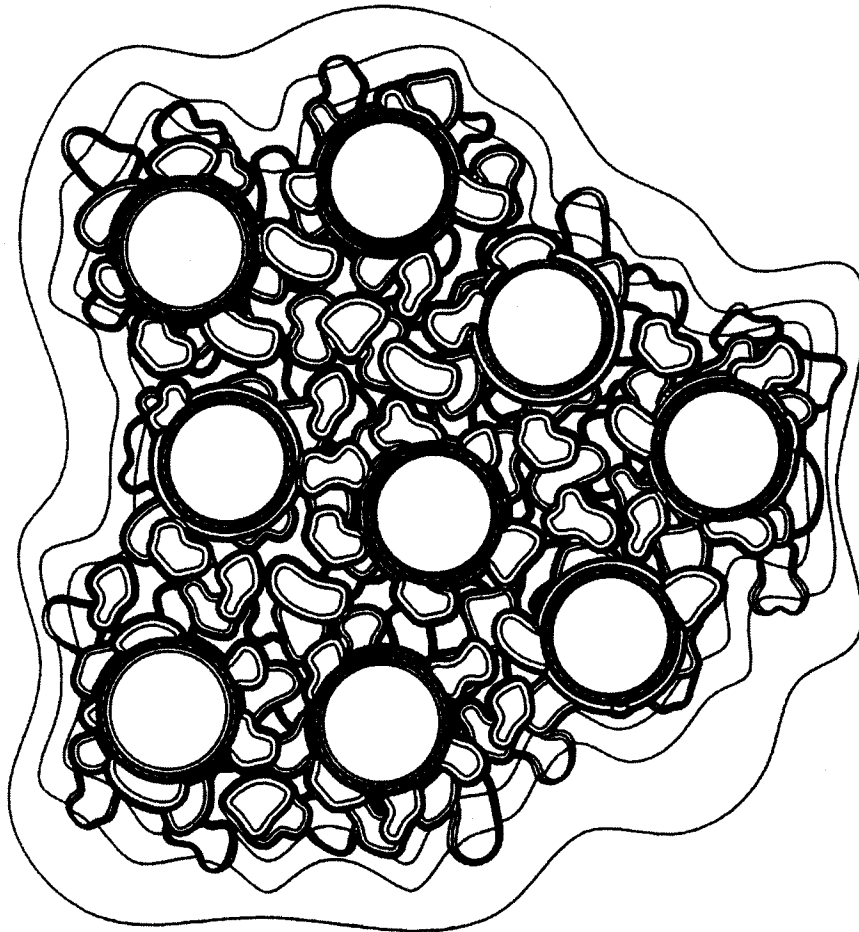


FIG. 3



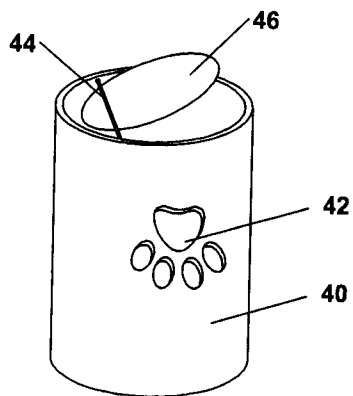


FIG. 4

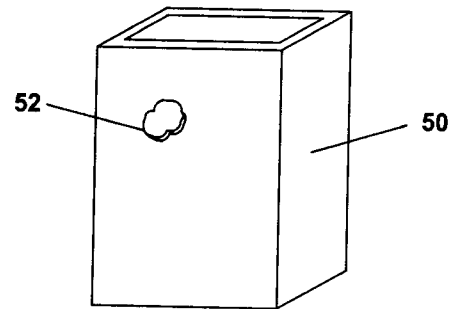


FIG. 5

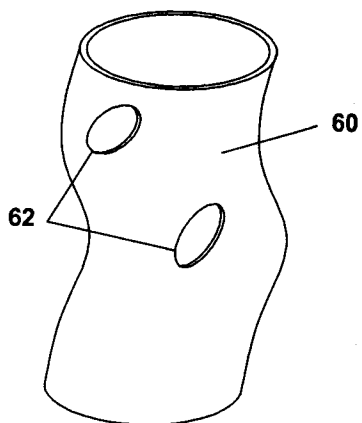


FIG. 6

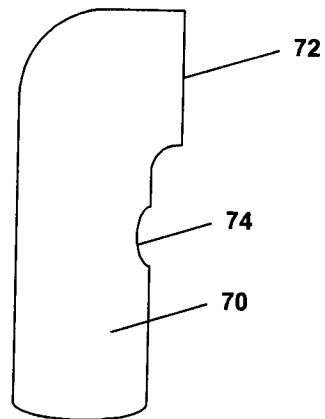


FIG. 7

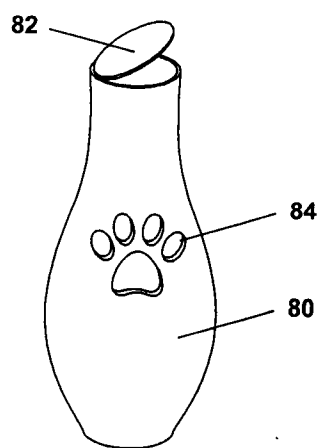


FIG. 8

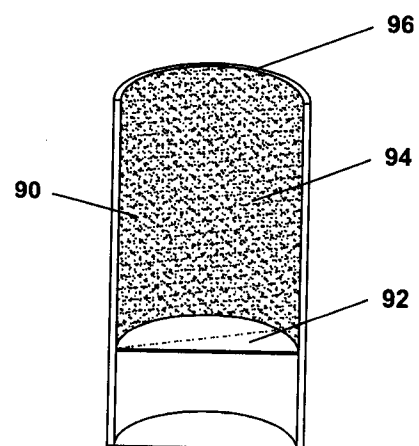


FIG. 9

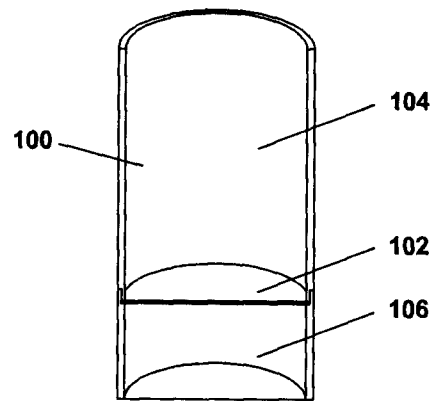


FIG. 10

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2010/001461

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **A01K 1/10** (2006.01) , **A01K 15/02** (2006.01) , **B65D 1/34** (2006.01)
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)
IPC: A01K 1/10 (2006.01) , A01K 15/02 (2006.01) , B65D 1/34 (2006.01)
USPC: 128/

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)
Epoque: EPODOC, English, French Full-Text databases

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US2008029038 A1 (CHILCOAT, D.) 07 February 2008 (2008-02-07) *paras. 0068 to 0074, figures 4C, 8A, 8B*	1 to 5 and 7 to 16
X	US5711253 A (PHILLIPS, G. et al.) 27 January 1998 (1998-01-27) *col. 3, lines 4 to 31, figure 1*	1 to 5, 7, 9, 10, and 13 to 16
X	US3994262 A (SUCHOWSKI, B. et al.) 30 November 1976 (1976-11-30) *the whole document*	1 to 7, 9, 10, 11 and 13 to 16
A	US5092269 A (PHILLIPS, G. et al.) 03 March 1992 (1992-03-03) *the whole document*	1 to 16
A	US5050536 A (BAKER, R.) 24 September 1991 (1991-09-24) *the whole document*	1 to 16
A	US2007051323 A1 (GUARD, T.) 08 March 2007 (2007-03-08) *the whole document*	1 to 16

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search

23 January 2011 (23-01-2011)

Date of mailing of the international search report

4 February 2011 (04-02-2011)

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage I, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9
Facsimile No.: 001-819-953-2476

Authorized officer

Kristian Ewen (819) 934-4269

INTERNATIONAL SEARCH REPORTInternational application No.
PCT/CA2010/001461

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US6209490 B1 (SCHWEDE, G.) 03 April 2001 (2001-04-03) *the whole document*	1 to 16
A	GB2336356 (FRANCIS, N. et al.) 28 August 2002 (2002-08-28) *the whole document*	1 to 16

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CA2010/001461

Patent document Cited in Search report	Publication Date	Patent Family Member(s)	Publication Date
US2008029038 A1	07-02-2008	WO2006094059 A2 WO2006094059 A3 US2006196439 A1	08-09-2006 23-08-2007 27-09-2006
US5711253 A	27-01-1998	- -	
US3994262 A	30-11-1976	FR2298944 A1 FR2298944 B1	27-08-1976 22-07-1977
US5092269 A	03-03-1992	- -	
US5050536 A	24-09-1991	GB2244639 A	11-12-1991
US2007051323 A1	08-03-2007	US7578264 B2	25-08-2009
US6209490 B1	03-04-2001	- -	
GB2336356	28-08-2002	- -	