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(54) Hand-held dispenser for croquettes, food articles, drugs and granular products in general

(57) A hand-held dispenser (1) for a granular product such as croquettes, food articles, drugs and other granular products in general, said dispenser including a front shell (2) associated with a rear base (3), said front shell including a bottom opening (4) and a top window (5), wherein said hand-held dispenser further comprises a cap (6) pivoted within said front shell so as to turn therein about a central rotary axis (7), against resilient means (8), the space defined between the movable cap and base defines a volume for holding said granular product therein, said granular product being delivered through the bottom opening (4) by turning said cap through a handle means which may be operated through the top window, wherein said cap (6) comprises, at a bottom portion thereof, an opening adapted to be arranged in alignment with said shell bottom opening (4) as said cap is rotated with respect to said shell, that said shell bottom opening is provided for both loading the granular product and for delivering it and wherein said base comprises a downward opening resilient blade element (10) allowing to connect said hand-held dispenser to a user's belt or to a user's necklace thereby, in a condition in which said dispenser is coupled to the user, said handle means may be driven by a thumb of a hand of the user and the delivered product may be collected in the palm of the same hand.

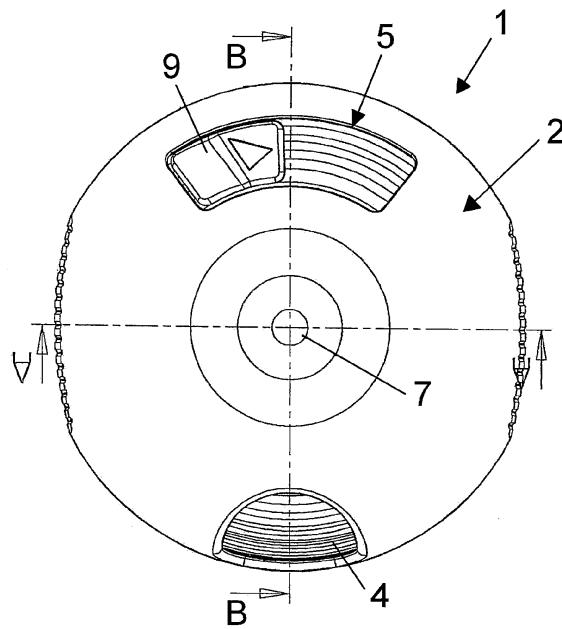


FIG. 1

Description**BACKGROUND OF THE INVENTION**

[0001] The present invention relates to a hand-held dispenser for croquettes, food articles, drugs and granular products in general.

[0002] A number of product containers, the so called dispensers, for delivering granular products, such as croquettes for animals, sweetmeats and pharmaceutical products are known and used on the market.

[0003] A typical prior dispenser comprises a plastics material casing or box including an opening closed by a snap engaged cover.

[0004] To deliver its contents, for example a croquette, it is necessary to hold the dispenser in a hand and, after having opened the cover, deliver to and collect the desired product dose in the other hand,

[0005] In some cases, the snap engaged cover may be opened by the thumb of the same hand holding the dispenser, but also in this case it is necessary to collect the products in the other hand or at a use place.

[0006] A further drawback of prior dispensers is that the opening system designed therefor must be fitted to the product to be delivered, which may have a very different size or grain dimension.

SUMMARY OF THE INVENTION

[0007] Accordingly, the aim of the present invention is to provide such a hand-held dispenser allowing to easily carry the product to be delivered.

[0008] Within the scope of the above mentioned aim, a main object of the invention is to provide such a hand-held dispenser allowing to easily and quickly take the product contained therein by using a single hand for both opening a product inlet/outlet door and collecting a target product dose.

[0009] Another object of the present invention is to provide such a hand-held dispenser which may be easily made in any desired dimensions, and which, moreover, allows to precisely and easily deliver very different particle size products.

[0010] Yet another object of the present invention is to provide such a hand-held dispenser which is very simple construction-wise and which, moreover, is very competitive from a mere economic standpoint.

[0011] Yet another object of the present invention is to provide such a hand-held dispenser which is very reliable and safe in operation.

[0012] According to one aspect of the present invention, the above mentioned aim and objects, as well as further objects, which will become more apparent hereinafter, are achieved by a hand-held dispenser for croquettes, food articles, food and granular products in general, characterized in that said dispenser comprises a front shell associated with a rear base.

[0013] The front shell comprises a bottom opening and

a top window.

[0014] A cap is pivoted within the front shell so as to turn therein about a central rotary axis, against a counterbiasing resilient means.

[0015] The space defined between the movable cap and base provides a volume for holding said granular product therein.

[0016] Said granular product is delivered through the bottom opening by turning said cap through a handle means which may be operated through a top window.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] Further characteristics and advantages of the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred, though not exclusive, embodiment of the invention, which is illustrated, by way of an indicative but not limitative example, in the accompanying drawings, where:

Figure 1 is a front elevation view of the hand-held dispenser according to the present invention;
 Figure 2 is a side elevation view, as longitudinally cross-sectioned, of the inventive hand-held dispenser;
 Figure 3 is a side top elevation view of the inventive hand-held dispenser;
 Figure 4 is a top plan view, in cross-section, of the inventive hand-held dispenser;
 Figure 5 is a side elevation view of the front shell of the inventive hand-held dispenser;
 Figure 6 is a top plan view of the front shell of the inventive hand-held dispenser;
 Figure 7 is a front elevation view, in cross-section, of the hand-held dispenser according to the present invention;
 Figure 8 is a further side elevation view, as cross-sectioned, of the front shell of the hand-held dispenser;
 and
 Figure 9 shows an exemplary manner for using the hand-held dispenser according to the present invention.

45 DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0018] With reference to the number references of the above mentioned figures, the hand-held dispenser for croquettes, food articles, drugs and granular products in general, according to the present invention, which has been generally indicated by the reference number 1, comprises a front shell 2 associated with a rear base 3.

[0019] The front shell 2 includes a bottom opening 4 and a top window 5, having a circular sector shape.

[0020] A cap 6 is pivoted inside said front shell 2 so as to turn therein about a central rotary axis 7, against an urging spring 8, which has an end portion thereof fixed

to the cap 6 and the other end portion thereof fixed either to the shell 2 or to the base 3.

[0021] The cap 6 comprises, at the top thereof, an integral handle or knob 9, arranged at the top window 5 of the shell 2.

[0022] At the bottom thereof, said cap 6 comprises a cap opening which may be arranged so as to correspond to the bottom opening 4 of the shell 2 as the cap is rotatively driven with respect to the shell.

[0023] According to one aspect of the invention, said opening 4 is adapted to operate both for loading the product to be delivered and for just delivering it.

[0024] The space defined between the movable cap 6 and base 3 defines a granular product holding volume.

[0025] The base 3 comprises a support resilient blade element 10, downward opened, allowing, for example, to clamp the dispenser to a user belt or other element.

[0026] The inventive hand-held dispenser allows to easily transport different granular materials such as croquettes, food articles, drugs and any other granular products in general.

[0027] As stated, the inventive hand-held dispenser may be easily connected to a user's belt, as shown in figure 9, or it may be worn, through a cord, to the user's neck.

[0028] As the inventive dispenser is clamped to a belt, it will allow to take the granular product held therein by a single user's hand both for opening the inlet/out door and for collecting the delivered material with a target dose.

[0029] More specifically, it is possible to drive the knob or handle 9 by a thumb of a hand and collect the product delivered from the delivery opening 4 by the palm of that same hand.

[0030] In this connection, it should be apparent that, depending on the rotary movement amount of the opening handle or knob, the granular product will be delivered to the outlet in a controlled dose, also considering the fact that said material or product may have a very different particle size.

[0031] The inlet/outlet door opening mechanism spring will allow the cap to easily automatically return to its starting closure position.

[0032] It has been found that the invention fully achieves the intended aim and objects.

[0033] In fact, the invention has provided a hand-held dispenser allowing to transport and deliver granular products in a much more easier way than prior like dispensers.

[0034] In particular, the hand-held dispenser according to the present invention allows to precisely meter the product being delivered while allowing it to be collected in the same user's hand.

[0035] In practicing the invention, the used materials, as well as the contingent size and shapes, can be any, depending on requirements.

Claims

1. A hand-held dispenser for a granular product such as croquettes, food articles, drugs and other granular products in general, said dispenser including a front shell associated with a rear base, said front shell including a bottom opening and a top window, **characterized in that** said hand-held dispenser further comprises a cap pivoted within said front shell so as to turn therein about a central rotary axis, against resilient means, **that** the space defined between the movable cap and base defines a volume for holding said granular product therein, said granular product being delivered through the bottom opening by turning said cap through a handle means which may be operated through the top window, **that** said cap comprises, at a bottom portion thereof, an opening adapted to be arranged in alignment with said shell bottom opening as said cap is rotated with respect to said shell, **that** said shell bottom opening is provided for both loading the granular product and for delivering it, and **that** said base comprises a downward opening resilient blade element allowing to connect said hand-held dispenser to a user's belt or to a user's necklace thereby, in a condition in which said dispenser is coupled to the user, said handle means may be driven by a thumb of a hand of the user and the delivered product may be collected in the palm of the same hand.
2. A hand-held dispenser, according to claim 1, **characterized in that** said resilient means comprise a spring having an end portion thereof fixed to said cap and the other end portion thereof fixed to said shell or base thereby automatically causing said cap to be automatically returned to a closure position thereof after each delivering of said product.
3. A hand-held dispenser, according to claim 1, **characterized in that** said handle means is formed as an integral part of a top portion of said cap arranged at said top window of said shell.
4. A hand-held dispenser, according to claim 1, **characterized in that** said shell bottom opening may be so adjusted as to allow said product to be properly delivered, depending on the granulometric size of said product.

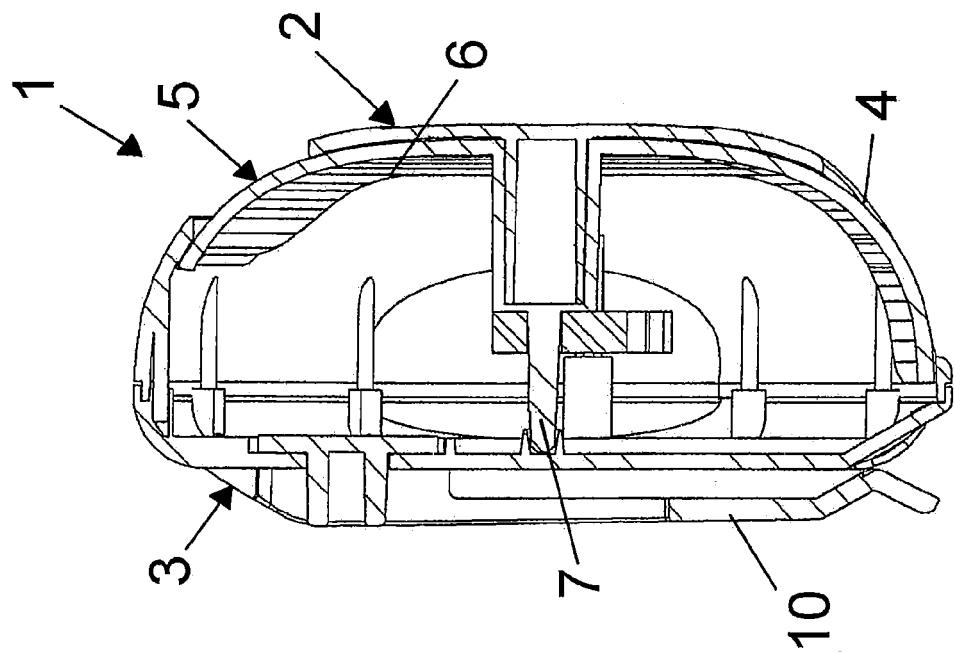


FIG. 2

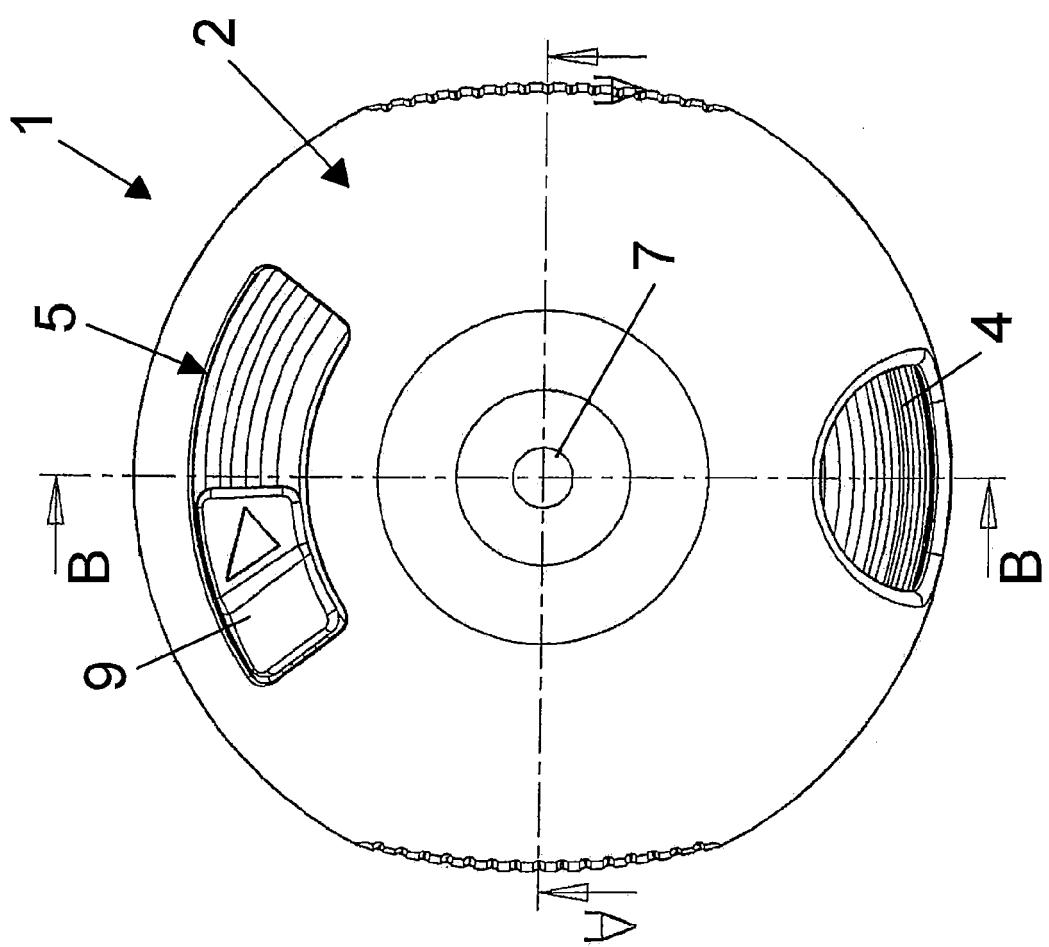
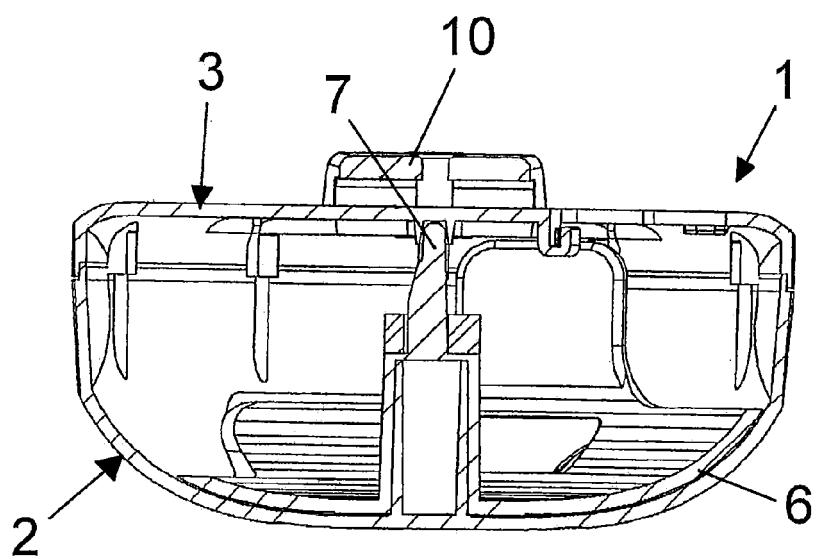
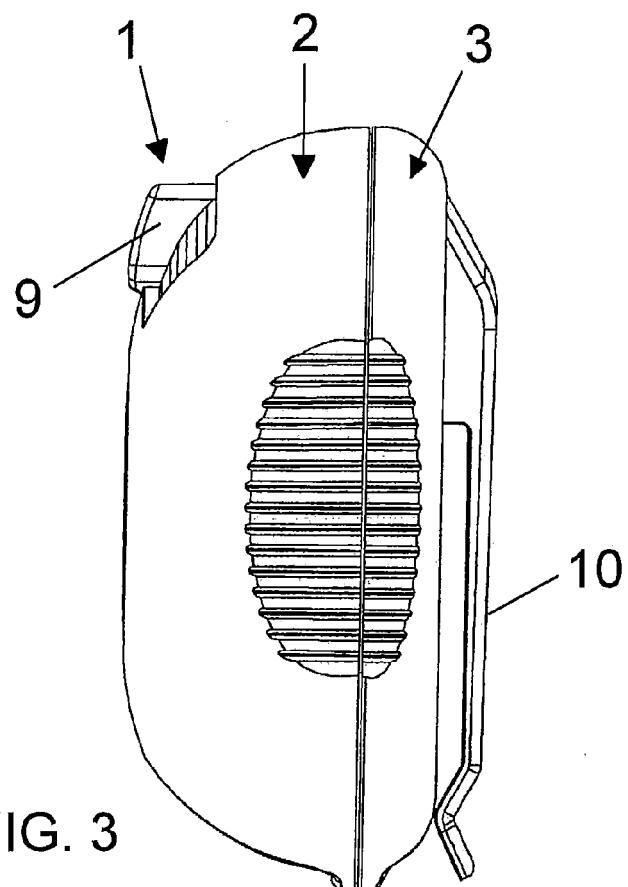


FIG. 1



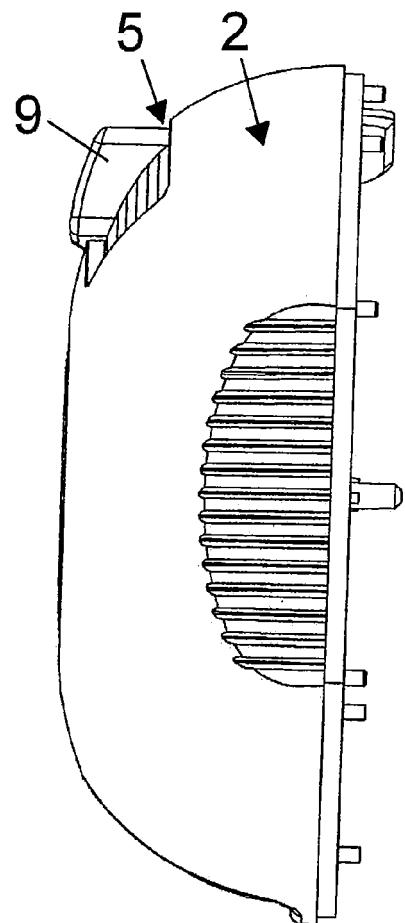


FIG. 5

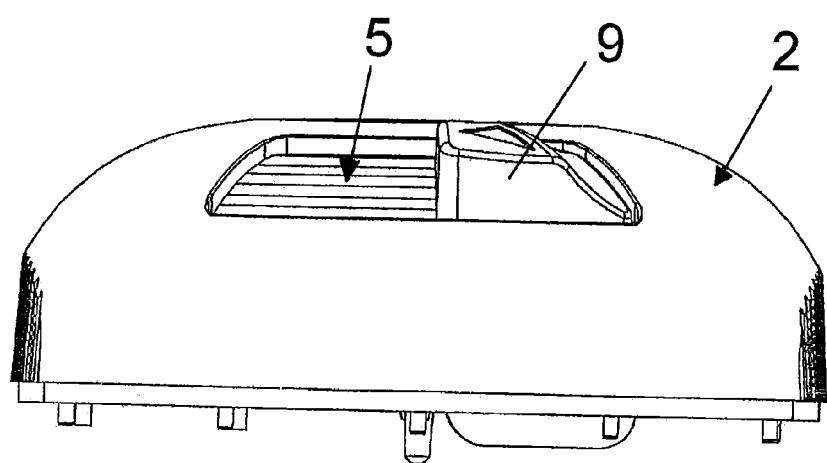
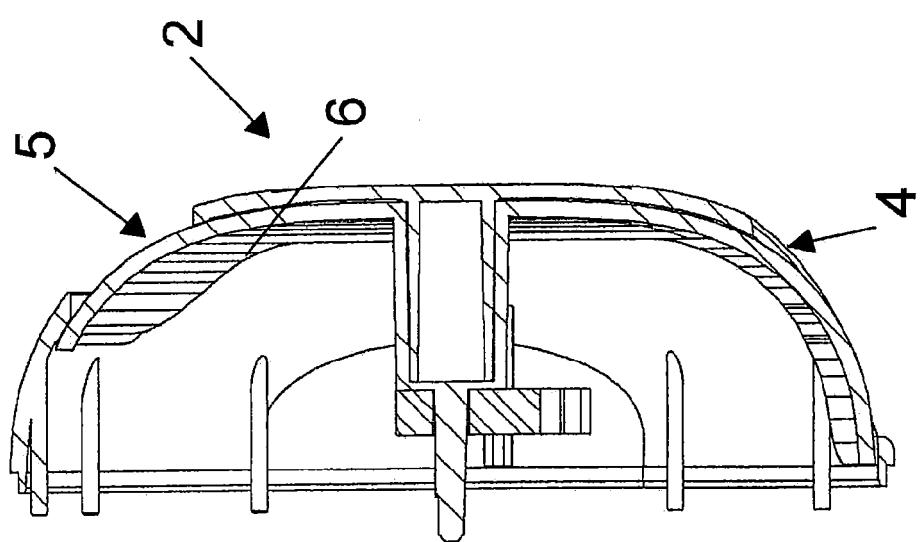
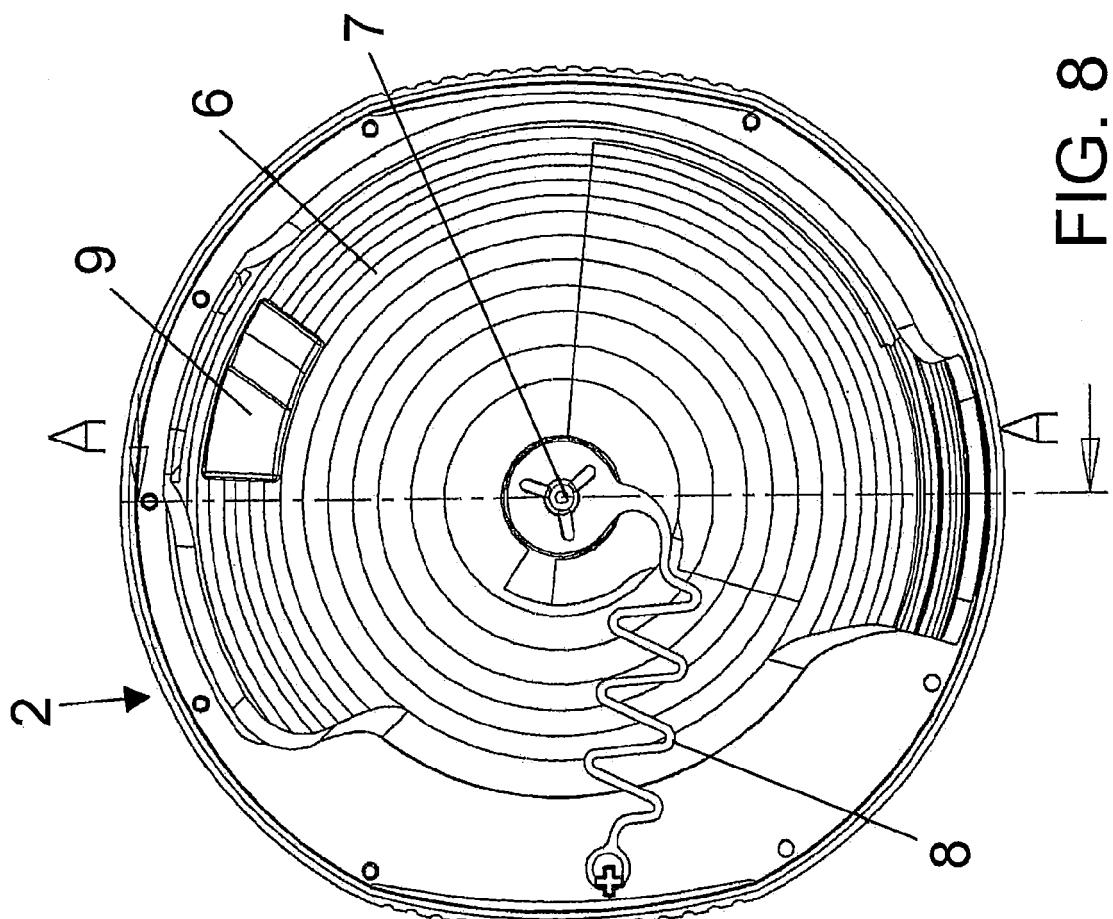


FIG. 6



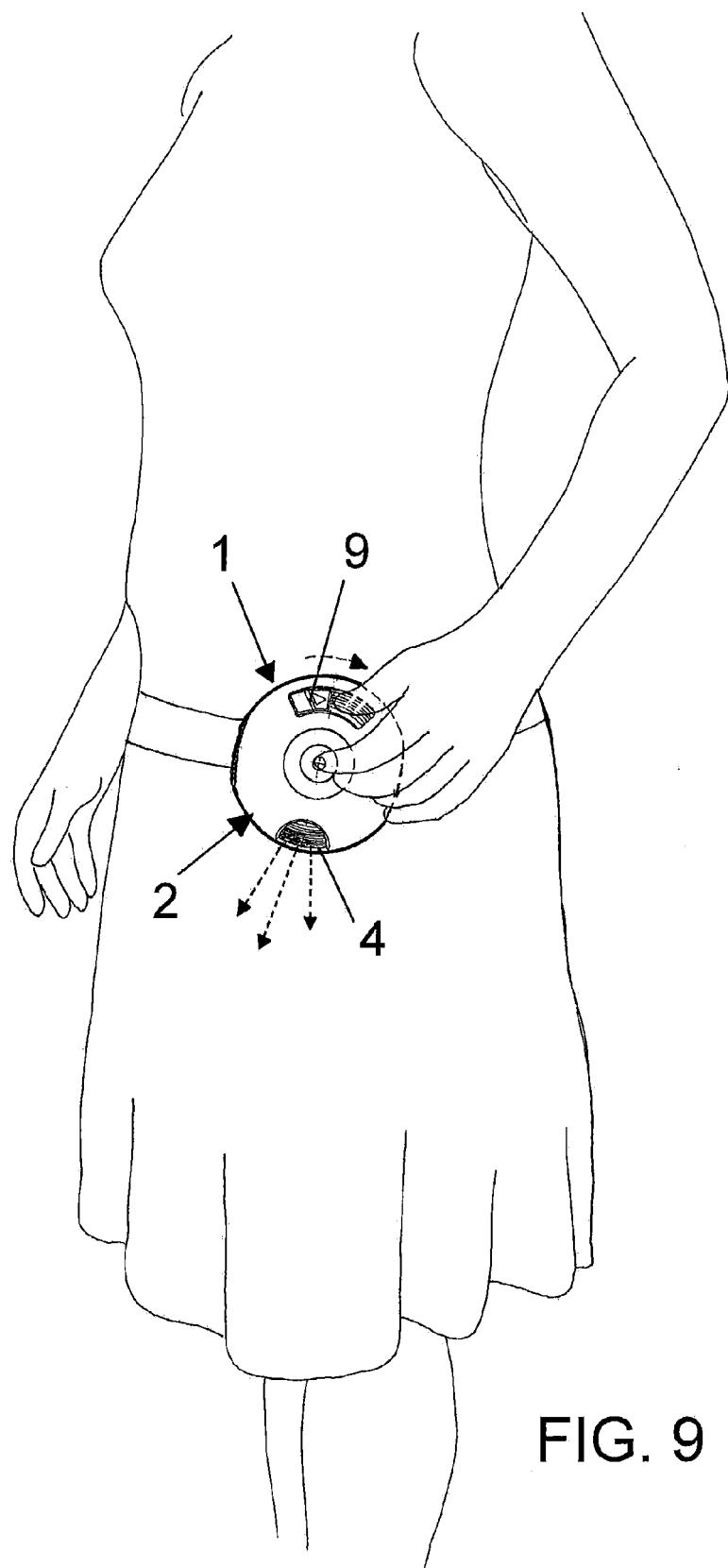


FIG. 9



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EUROPEAN SEARCH REPORT

Application Number
EP 11 18 6626

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	US 3 638 830 A (BELOKIN PAUL JR) 1 February 1972 (1972-02-01) * column 5, line 29 - column 6, line 12; figures 7-9 *	1-4	INV. B65D83/06 B65D47/26 A47G19/34 B65D25/22
Y	DE 581 466 C (ADOLF HENSEL) 28 July 1933 (1933-07-28) * page 1, line 19 - line 25; figures *	1-4	
Y	US 2003/221988 A1 (ACHATZ STEVE [US] ET AL) 4 December 2003 (2003-12-04) * abstract; figures *	1	
A	GB 2 346 365 A (RPC CONTAINERS LTD [GB]) 9 August 2000 (2000-08-09) * the whole document *	1	

			TECHNICAL FIELDS SEARCHED (IPC)
			B65D A47G
The present search report has been drawn up for all claims			
1	Place of search	Date of completion of the search	Examiner
	The Hague	9 January 2012	Zanghi, Amedeo
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 11 18 6626

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-01-2012

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DE 581466	C	28-07-1933	NONE	
US 2003221988	A1	04-12-2003	NONE	
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