



(51) International Patent Classification:

B65D 5/50 (2006.01) *A47G 19/03* (2006.01)
B65D 77/04 (2006.01) *B65D 3/06* (2006.01)
B65D 81/38 (2006.01) *B65D 25/10* (2006.01)
B65D 85/78 (2006.01)

(21) International Application Number:

PCT/IT2009/000056

(22) International Filing Date:

13 February 2009 (13.02.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(72) Inventors; and

(71) Applicants : **DI MARZIO, Silvio** [IT/IT]; 3/D, Via Santa Lucia, I-65010 Spoltore (PE) (IT). **D'ADDAZIO, Francesco** [IT/IT]; 89, Via Dante, I-65010 Cappelle sul Tavo (PE) (IT).

(74) Agent: **ROZZI, Giuseppe**; Consulmarchi SRL, 41, Via Napoli, I-65121 Pescara (IT).

(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.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, 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, MK, 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).

[Continued on next page]

(54) Title: DISPOSABLE CONTAINER FOR FAST FOOD

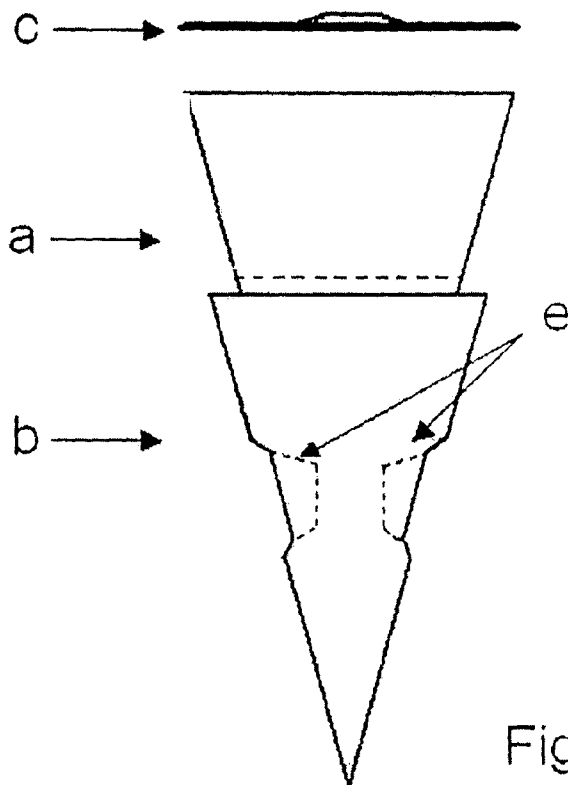


Fig. 2

(57) Abstract: This patent comprises a characterized in that it permits the consumption of hot and cold food such as pasta, soup, and any type of meal containing sauces or liquid seasonings, using only one hand, without burning one's hands or requiring a support element such as a table, bar surface, etc. The container is composed of: a truncated cone shaped tub (a), a cone made of stiff paper (b), a Lid (c). The cone is provided with two-diamond-shaped side slots (d) obtained by bending two pre-cut fins (e) towards the interior of the cone, which allow the container to be held in a single hand and to provide greater functional stability. This invention offers a number of advantages which are illustrated in detail in the annex description.

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*

— *with amended claims and statement (Art. 19(1))*

DESCRIPTION

DISPOSABLE CONTAINER FOR FAST FOOD

TECHNICAL FIELD

This patent application concerns a disposable container for fast food.

- 5 The term *fast food* is commonly known and used by the general public to describe the food purchased as a “take-away” and intended for rapid consumption, in the absence of seating places, such as for consumption standing at the bar, standing inside the sales point, in vehicles, in the street, for party dishes, picnics, sports events etc... typical of pizzerias, delicatessens, street vendors, etc. Generally, sales points and chains that supply take-away food also focus part of their marketing
- 10 strategy on the variety and efficiency of their service to customers, including efficient systems for serving drinks as well as hot and cold take-away meals.

Therefore the system used by take-away suppliers is fundamental for the success of the service provided, both in relation to the advantages for the user who cannot benefit from table service, as well as the economical advantages for the service supplier.

15 BACKGROUND ART

At present, take-away food is contained in plastic or paper plates of various sizes and shapes.

However, conventional systems have certain drawbacks, as regards the consumption of hot meals such as pasta, soups, and more generally, any hot meals containing a sauce or liquid seasonings, as well as regards cold meal consumption.

- 20 In fact, in order to consume a hot/cold meal, the container must be placed on a table or similar support surface to maintain the dish correctly balanced. Moreover, care must be taken not to burn hands when consuming hot meals.

DISCLOSURE OF INVENTION

The aim of this patent is to provide a container for take-away food that allows the user:

- 25 1) to consume hot and cold food, such as pasta, soup and all hot meals containing sauces or liquid seasonings, without using a support system such as tables, bar surfaces, etc...;
- 2) to avoid burning hands when holding a container of hot food.

This container must be able to be used with a single hand, so that the other hand is free to hold a fork or spoon, use a phone, shake hands with a friend, etc.

- 30 From this point of view it is easy to understand how the user who adopts this new system will no longer find himself in the condition of having to find a position to place and eat his food comfortably and also without burning his hands, being able to remain standing, holding the container with one hand without burning himself, and holding his fork or spoon, for example, in the other hand.

The container, object of this patent, presents a further advantage, because, since it facilitates the consumption and transport of food such as pasta, and/or rice, it contributes considerably towards the spreading of the "Mediterranean diet", a healthier and better balanced nutritional regime, and a valid and healthy alternative to the conventional bread roll, slice of pizza, etc...

- 5 The container, object of this patent, is composed of two parts: a truncated cone-shaped tub made from plastic material or waterproofed paper for foodstuffs (such as the material used for ice-cream tubs) and a cone made of stiff paper with two diamond-shaped side slots.

While in use, the two parts are coupled together, by inserting the tub inside the cone.

- 10 The upper tub is conceived to contain the food, while the lower cone serves to support and contain the tub so that it can be held using a single hand.

The container can also be closed with a lid to prevent the contents from spilling.

This simple description is sufficient to understand how the advantages provided by such a take-away container are not limited to more comfortable and easier consumption of take-away food, but also the storage of the material in question.

- 15 In fact, the two components of the invention can be packed separately, to save space, resulting in considerable savings in packing costs as well as storage space in the restaurant facilities.

BRIEF DESCRIPTION OF DRAWINGS

Figure 1 shows the container in a three-dimensional perspective view;

Figure 2 shows the container in a two-dimensional perspective view;

- 20 Figure 3 shows a three-dimensional side view of the cone stocking system;

Figure 4 shows a three-dimensional front view of the cone stocking system;

Figure 5 shows a three-dimensional view of the tub stocking system;

Figure 6 shows a two-dimensional view of the tub stocking system.

BEST MODE FOR CARRYING OUT THE INVENTION

- 25 Further on, an embodiment of the invention will be described in clearer detail.

To understand the description more easily, reference will be made to the annexed drawings, which are provided simply as an illustration and do not limit the concept of the invention in any way.

- Figures 1 and 2 are further perspective views showing the container as described in its operational position, and seen both in a three-dimensional and two-dimensional view;

- 30 Figures 1 and 2 highlight the truncated cone form (a) of the container upper tub.

The size of the tub can vary according to the amount of food it will contain. The standard size is able to contain a portion of pasta equal to that contained in a conventional plastic plate.

The stiff paper cone (b) enables the user to hold the container with a single hand, in a stable manner, and without burning the hand. In fact, the hand is not in direct contact with the hot food container because the area of the cone which is held in the hand is not in direct contact with the tub. Both the tub (a) and the cone (b) have conically shaped walls thus permitting solid coupling of the two parts, providing the invention with perfect stability during use.

The container can be closed with a lid (c) to prevent food from spilling from the tub, and to permit easier transport.

The cone (b) has two diamond-shaped side slots (d) that are obtained by bending the fins that have been pre-cut in the paper, towards the interior (e).

The advantage of the inward bending action is two-fold; on one hand it makes the invention easy to hold with a single hand, and on the other, the inward bending of the fins provides the cone with greater rigidity, by forming a further support element for the upper tub.

The coupling between the tub (a) and the cone (b) is performed at the moment of use by simply inserting the tub (a) into the cone (b). Obviously, the cone must be opened up first and the fins bent towards the interior.

Naturally the tub (a) can be used separately like a conventional plate or dish.

- Figures 3, 4, 5 and 6 show the storage system for the invention.

In fact, for material storage purposes, the cone can be flattened by pressing the sides to obtain a very slim paper triangle that is easy to stack (Fig. 3 and Fig. 4); the tubs can be stacked inside and on top of one another (Fig. 5 and Fig 6).

In a preferred embodiment as shown in the annexed figures, the tub of the invention is made from plastic material or waterproof paper for foodstuffs (a) and the cone is made from stiff paper (b).

The advantage to be gained from using plastic material or waterproof paper for the tub is that it can contain food without absorbing it.

The advantages of using stiff paper for the cone are the following:

- 1) this material permits easy bending of the fins inwards inside the cone, as the paper is very easy to handle;
- 2) it enables the cone to be easily flattened for handy packing and storage;
- 3) it can be easily and rapidly opened to form the cone at the moment it is required for use.

Furthermore, the advantage of using paper is that it can be printed with images, written text, etc. and can therefore be used for advertising purposes.

In fact, on one hand, the user who offers the fast food service can customise the cone by printing the name of the restaurant, to take advantage of name/image recognition, or on the other, he can sell this possibility to third parties to print their own advertising.

The description of this patent and the annexed drawings represent an embodiment of the invention provided merely as an example, but on the understanding that the invention can be realised in different shapes and materials.

CLAIMS

- 1) A disposable container for fast food, comprising of a truncated cone-shaped tub (a), to contain food, made from plastic material or waterproof paper for foodstuffs, and a stiff paper cone (b) to house the tub (a) that allows the container to be held in one hand without getting burned and a lid (c) to prevent the food in the tub from spilling;
- 5 2) The container of claim 1, wherein the cone (b) is provided with two diamond-shaped side slots (d) obtained by bending the pre-cut fins (e) towards the interior of the paper cone, thus on one hand, allowing the cone to be held using a single hand, and on the other, the internal bending of the fins increases the rigidity of the cone as it provides a further support element for the upper tub;
- 3) The container of the claim 2 in which the coupling action between the tub (a) and the cone (b) is
10 performed at the moment of use through the simple insertion of the tub (a) into the cone (b), which must first be opened and the fins (e) bent inwards;
- 4) The container of the claim 2, in which the conically shaped walls both in the tub (a) and in the cone (b) provide solid coupling between the two parts and give functional stability;
- 5) The container of the claim 1, wherein the cone can be flattened by pressing the sides to obtain a
15 very slim paper triangle easy to stack (Fig. 3 and Fig. 4) and the tubs can be stacked inside and on top of one another (Fig. 5 and Fig. 6), for storage purposes;
- 6) The container of the claim 1, wherein the paper used to form the cone (b) can be printed with texts and images etc. thus also providing a means for advertising.


AMENDED CLAIMS**received by the International Bureau on 11 January 2010 (11.01.2010)**

- 1) A disposable container for fast food, comprising of a truncated cone-shaped tub (a), to contain food, made from plastic material or waterproof paper for foodstuffs ~~characterized by~~ and a stiff paper cone (b) to house the tub (a) that allows the container to be held in one hand without getting burned, and a lid (c) to prevent the food in the tub from spilling; ~~2) The container of claim 1,~~ wherein the cone (b) is provided with two diamond-shaped side slots (d) obtained by bending the pre-cut fins (e) towards the interior of the paper cone, thus on one hand, allowing the cone to be held using a single hand, and on the other, the internal bending of the fins increases the rigidity of the cone as it provides a further support element for the upper tub;
- 3) The container of the claim 1 in which the coupling action between the tub (a) and the cone (b) is performed at the moment of use through the simple insertion of the tub (a) into the cone (b), which must first be opened and the fins (e) bent inwards;
- 4) The container of the claim 1, in which the conically shaped walls both in the tub (a) and in the cone (b) provide solid coupling between the two parts and give functional stability;
- 5) The container of the claim 1, wherein the cone can be flattened by pressing the sides to obtain a very slim paper triangle easy to stack (~~Fig. 3 and Fig. 4~~) and the tubs can be stacked inside and on top of one another (~~Fig. 5 and Fig. 6~~), for storage purposes;
- 6) The container of the claim 1, wherein the paper used to form the cone (b) can be printed with texts and images etc. thus also providing a means for advertising.

AMENDED CLAIMS
received by the International Bureau on 11 January 2010 (11.01.2010)

STATEMENT UNDER ARTICLE 19 (1)

Following the advises included in the ISA written opinion, we are filing the present statement under art. 19(1).

- (i) We have provided to unit the claims 1 and 2 so now is more clear using the two part claim system which are the features known in combination of the prior art (preamble) and which are the improvement of the invention (body) connected with the transitional phrase "characterized by".
- (ii) The claim 2 is added to claim 1 as above explained.
- (iii)  The claim 3 is unchanged except for the reference to the claim 1 and not 2.
- (iv) The claim 4 is unchanged except for the reference to the claim 1 and not 2.
- (v) The claim 5 is changed withdrawing the references to the drawings.
- (vi) The claim 6 is unchanged.

We think that the proposed amended claims explain better the improvement of the present invention respect to the prior art and that they have no impact on the description and drawings.

Best regards.

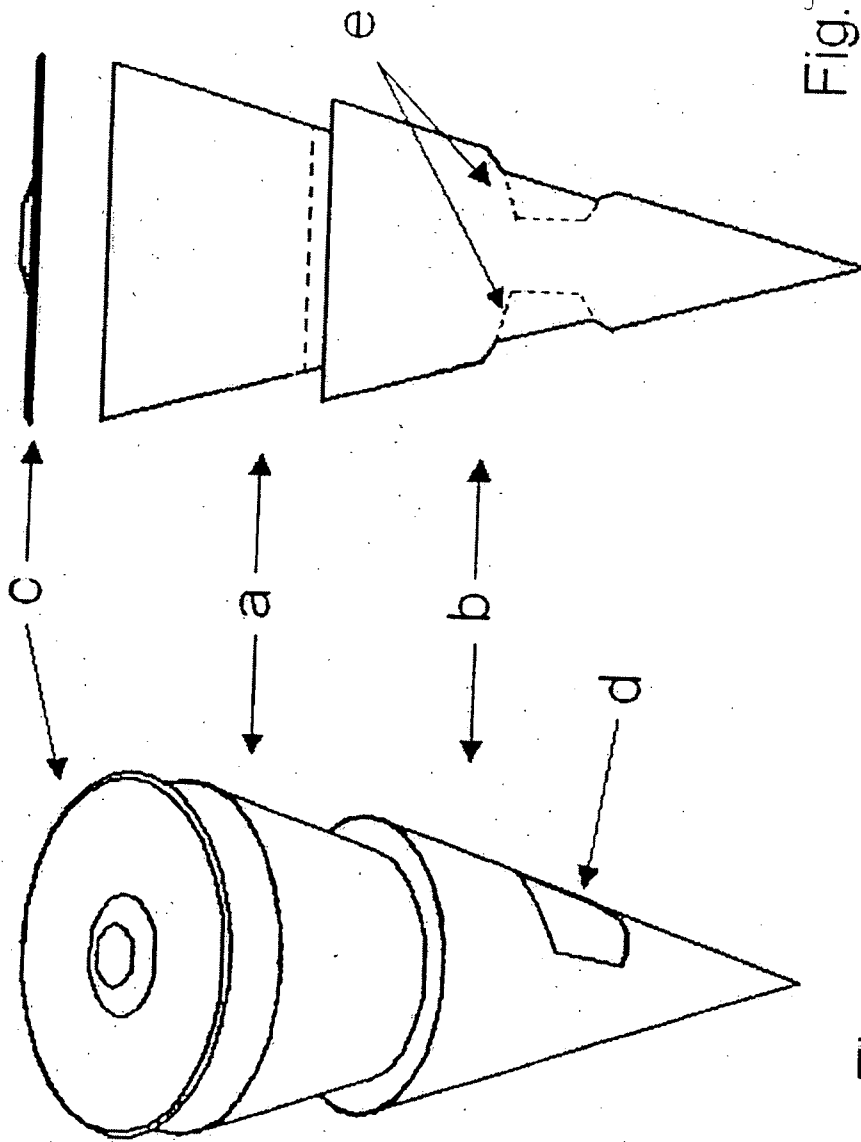


Fig. 2

Fig. 1

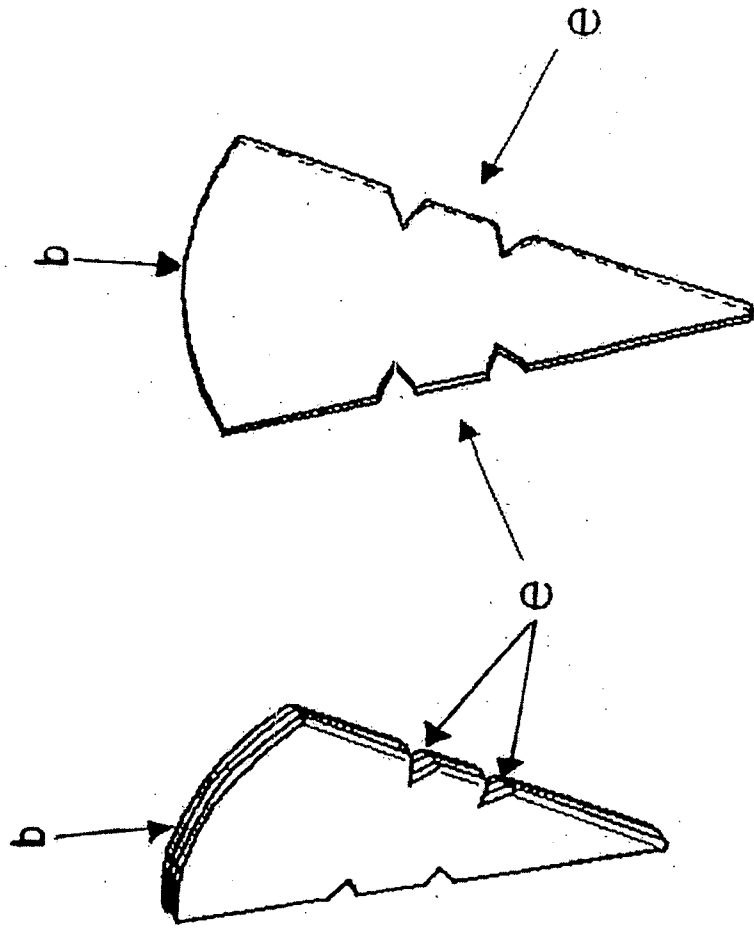


FIG 4

FIG 3

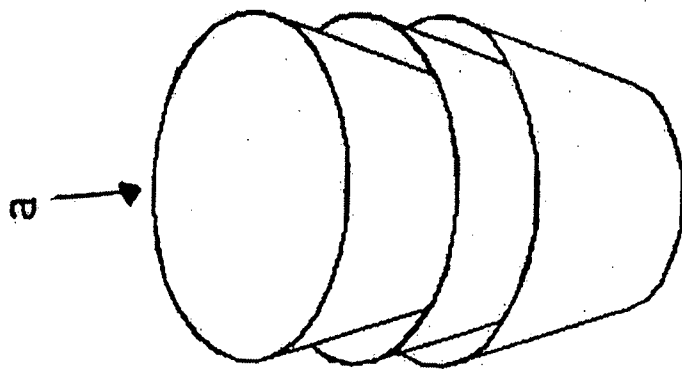


FIG 5

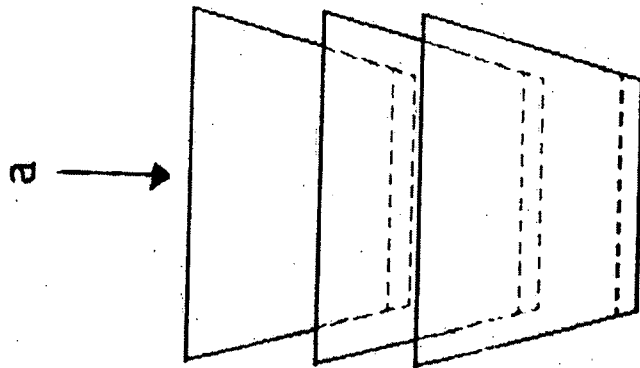


FIG 6

INTERNATIONAL SEARCH REPORT

International application No
PCT/IT2009/000056

A. CLASSIFICATION OF SUBJECT MATTER
 INV. B65D5/50 B65D77/04 B65D81/38 B65D85/78 A47G19/03
 B65D3/06 B65D25/10

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 A47G

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.
A	US 6 562 270 B1 (GANNON RICHARD A [US] ET AL) 13 May 2003 (2003-05-13) column 1, line 16 - column 5, line 30; figures 3,4,7,8	1,4,6
A	WO 2006/031649 A (HECHMATI LAURENT [US]) 23 March 2006 (2006-03-23) page 1, line 4 - page 8, line 22; figures 22b,23a,23b	1,6
A	DE 600 09 379 T2 (STORK FOOD & DAIRY SYSTEMS B V [NL]) 23 December 2004 (2004-12-23) paragraphs [0001] - [0030]; figures 1-3	1
A	FR 2 136 966 A (UNILEVER NV) 29 December 1972 (1972-12-29) page 1, line 20 - page 3, line 8; figure 1	1,4
	-/--	

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

5 November 2009

Date of mailing of the international search report

20/11/2009

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

Lämmel, Gunnar

INTERNATIONAL SEARCH REPORT

International application No
PCT/IT2009/000056

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005/056654 A1 (LEUNG BERNARD [US]) 17 March 2005 (2005-03-17) paragraph [0040] -----	1,2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/IT2009/000056

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
US 6562270	B1	13-05-2003	NONE	
<hr/>				
WO 2006031649	A	23-03-2006	CA 2580049 A1	23-03-2006
			CN 101044064 A	26-09-2007
			EP 1786685 A2	23-05-2007
			JP 2008512319 T	24-04-2008
			KR 20070099544 A	09-10-2007
<hr/>				
DE 60009379	T2	23-12-2004	AT 263084 T	15-04-2004
			DE 60009379 D1	06-05-2004
			EP 1044889 A1	18-10-2000
			ES 2218061 T3	16-11-2004
			NL 1011798 C2	17-10-2000
<hr/>				
FR 2136966	A	29-12-1972	NONE	
<hr/>				
US 2005056654	A1	17-03-2005	NONE	
<hr/>				