



(12) **EUROPEAN PATENT APPLICATION**  
published in accordance with Art. 158(3) EPC

(43) Date of publication:  
**27.08.2008 Bulletin 2008/35**

(51) Int Cl.:  
**A01K 23/00 (2006.01)**

(21) Application number: **06822773.5**

(86) International application number:  
**PCT/JP2006/321844**

(22) Date of filing: **01.11.2006**

(87) International publication number:  
**WO 2007/069407 (21.06.2007 Gazette 2007/25)**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR**

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(30) Priority: **16.12.2005 JP 2005363683**

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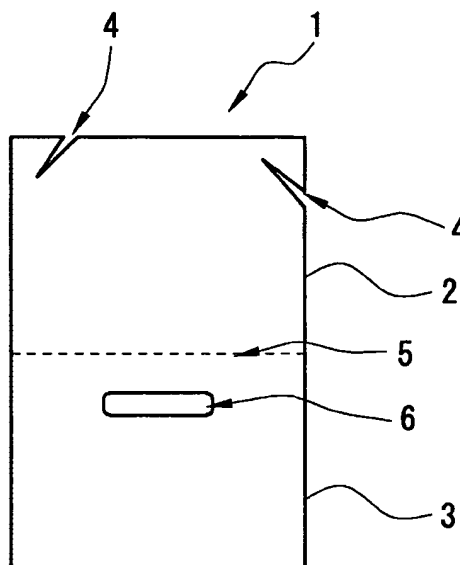
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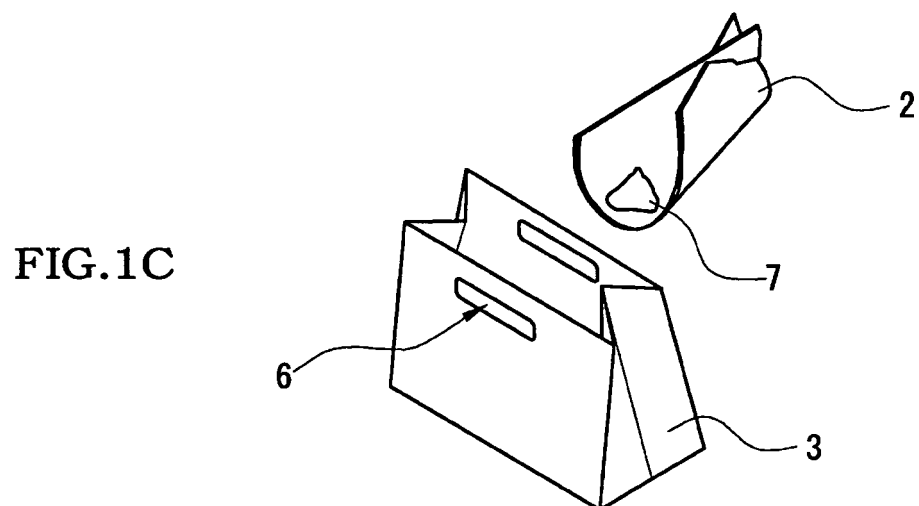
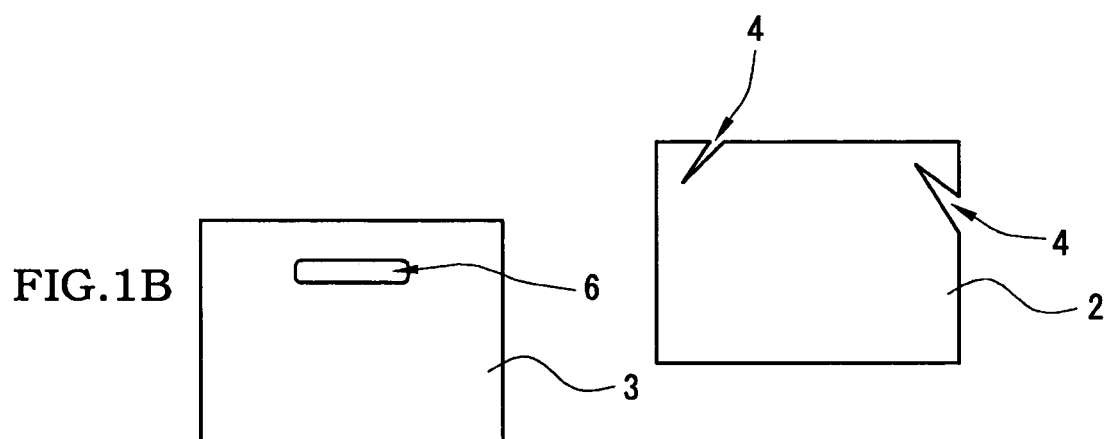
(54) **DIRT DISPOSAL BAG**

(57) Provided is a disposable bag in which a feeling of filth is hardly sensed, and which, together with the filth contained in the bag, can be disposed of into drainage water. The disposable bag (1) is configured such that a water-soluble filth collecting member (2) used for collecting filth such as excrement of a dog and a water-soluble filth containing member (3) for containing, together with the filth collecting member, the collected filth are joined together in a separable manner by an approximate linear perforation (5). In the filth collecting member (2), notches

(4) for bringing the filth collecting member into a U-shape by engaging with each other at outer edges apart from the perforation (5) are formed. In the vicinity of the perforation (5) of the filth containing member (3), through-holes (6) are formed. The filth collecting member (2) and the filth containing member (3) are kept apart along the perforation (5) and the notches (4) formed in the filth collecting member (2) are engaged with each other to bring the filth collecting member (2) into a U-shape. The filth collecting member (2) thus formed in a U-shape is used to pick up excrement (7) as if to use a scoop.

**FIG.1A**





## Description

### Technical Field

**[0001]** The present invention relates to a disposable bag. More specifically, the present invention relates to a disposable bag capable of containing filth such as excrement of favorite animals such as a dog and being directly discarded as is into a flush toilet.

### Background of the Invention

**[0002]** When a dog is walked and the dog deposits excrement, it is basic etiquette for a person who takes the dog for a walk to collect the excrement.

**[0003]** Therefore, as a disposal method of the excrement of a dog when taking the dog for a walk, there has been used a method in which the person who takes the dog for a walk carries a vinyl bag, and when the dog deposits excrement, the person places his or her one hand into the vinyl bag to grab the excrement of a dog together with the vinyl bag, and subsequently, the person everts the vinyl bag to leave the excrement inside the vinyl bag, and discards the vinyl bag containing the excrement in an appropriate place.

**[0004]** Another disposal method to be used includes one in which the person who takes the dog for a walk carries tongs and a vinyl bag, and when the dog deposits excrement, the person grabs the excrement with the tongs, places the excrement into the vinyl bag, and discards the vinyl bag containing the excrement in an appropriate place.

**[0005]** However, in either method, the filth such as excrement placed in the vinyl bag needs to be stored at home or in other places until a garbage collection day. Thus, this often results in an odor or unsanitary environment.

**[0006]** Therefore, various techniques for disposing of the collected filth, together with the bag, into drainage-water have been proposed. For example, Patent Document 1 describes a topless bag-type filth disposable product, in which used is a water-soluble antibacterial toilet seat paper, formed in an oblong square, composed of a treated paper portion 101, a treated paper portion 102, a treated paper portion 103 appropriately cut off according to an amount of filth along a perforation 104, a perforation 105, a perforation 106, a perforation 107, and a perforation 108; and a bag portion 109 and a strap portion 110. With such a filth disposable product, when the both ends of the strap portion are bound, the filth disposable product can be carried as if to carry a handbag. Thus, the filth can be brought back home almost without making a human hand dirty. Furthermore, when the filth is disposed of into sewage by using a domestic-use toilet, the post-treatment of the filth can be easily performed, thereby a sanitary contribution can be made as well. A schematic view of the conventional filth disposable product is shown in Fig. 3.

Patent Document 1: Japanese Utility Model Registration No. 3038652

### Disclosure of the Invention

#### Problems to be Solved by the Invention

**[0007]** However, in the conventional filth disposable product, the excrement is grabbed with treated paper and placed inside the bag portion. Thus, even though there is paper between the excrement and the hand, a feeling of excrement is sensed to the hand, thereby this results in discomfort, and possibly the hand is made dirty as well. When the excrement of a dog contains relatively a small amount of water, it is easy to grab the excrement. However, when the excrement of a dog is a diarrhea stool containing a significant amount of water, it is difficult to collect the excrement by grabbing it with the treated paper.

**[0008]** The present invention has been devised in view of the above problems, and an object thereof is to provide a disposable bag by which a feeling of filth is not easily sensed, and which, together with the filth contained in the bag, is capable of being disposed of into drainage water.

#### Means for Solving the Problems

**[0009]** In order to attain the above object, a disposable bag of the present invention is a disposable bag for containing and disposing of filth, formed such that a water-soluble filth collecting member and a water-soluble filth containing member are joined together in a separable manner, and U-shape formation means for bringing the filth collecting member into an approximate U-shape are formed in the filth collecting member.

**[0010]** The U-shape formation means for bringing the filth collecting member into an approximate U-shape allows a scoop-like use of the filth collecting member. Thus, it is possible to collect the filth without grabbing the filth by hand.

**[0011]** Alternatively, in the disposable bag of the present invention, when a joint of the filth collecting member and the filth containing member is formed to be approximately linear and through-holes are formed in the vicinity of the joint of the filth containing member, it becomes possible to easily carry the filth containing member containing the filth as if to carry a handbag by inserting fingers through the through-holes, and since the holding portion is made approximately linear, the holding portion is larger in strength than an arch-shaped holding portion.

**[0012]** Furthermore, in the disposable bag of the present invention, when the U-shape formation means are notches formed at two edges of the filth collecting member, engagement of each notch can bring the filth collecting member into an approximate U-shape. It is further possible to form the U-shape formation means without requiring a special process or member.

**[0013]** Alternatively, in the disposable bag of the present invention, when the notches are formed in positions apart from the joint between the filth collecting member and the filth containing member, it becomes possible to retain larger strength as compared to the case where the notches are formed in the vicinity of the joint.

**[0014]** Alternatively, in the disposable bag of the present invention, when slits are formed in the filth collecting member and the slits are formed in positions into which the corners in the vicinity of the notches of the filth collecting member are folded when the notches are engaged with each other, the engaged portion is made rounded. Thus, it becomes easy to be held by hand.

#### Effects of the Invention

**[0015]** In the disposable bag according to the present invention, a feeling of the filth is hardly sensed to a hand, and the disposable bag, together with the filth contained in the bag, can be disposed of into drainage water.

#### Brief Description of the Drawings

##### **[0016]**

Figs. 1A to 1C are schematic views showing one embodiment and one usage mode of a disposable bag to which the present invention is applied;  
Figs. 2A to 2C are schematic views showing another embodiment of a disposable bag to which the present invention is applied; and  
Fig. 3 is a schematic view of a conventional filth disposable product.

#### Description of Symbols

##### **[0017]**

- 1: Disposable bag
- 2: Filth collecting member
- 3: Filth containing member
- 4: Notch
- 5: Perforation
- 6: Through-hole
- 7: Excrement
- 8: Slits

#### Best Mode for Carrying Out the Invention

**[0018]** An embodiment of the present invention will be described below with reference to the drawings to facilitate understanding of the present invention. Figs. 1A to 1C are schematic views showing one embodiment and one usage mode of a disposable bag to which the present invention is applied.

**[0019]** In Fig. 1A, a disposable bag 1 is configured such that a water-soluble filth collecting member 2 used for collecting filth such as excrement of a dog and a water-

soluble filth containing member 3 for containing the collected filth and the filth collecting member as well are joined together in a separable manner via an approximately linear perforation 5. In addition, in the filth collecting member 2, notches 4 (an example of U-shape formation means) for bringing the filth collecting member into a U-shape by engaging with each other are each formed at two outer edges apart from the perforation 5. Through-holes 6 are formed in the vicinity of the perforation 5 of the filth containing member 3.

**[0020]** The water-soluble filth collecting member 2 and the water-soluble filth containing member 3 are each composed of water-soluble paper manufactured by Mishima Paper Co., Ltd. (type: 60CD-2, dispersion time: 60 seconds, specific gravity: 0.5g/cm<sup>3</sup>, and paper surface pH: 11), both of which turn into a gel when being wetted by water.

**[0021]** The water-soluble filth collecting member 2 and the water-soluble filth containing member 3 are provided with printing areas. When 100% vegetable oil-based (soybean oil, etc.) ink (trade name: Naturalith 100, for example) that contains no volatile organic compound component is used for printing in the printing areas, a strong ink coating is formed due to a sufficient vegetable oil component. As a result, the printing areas have excellent rub resistance, and printed text and graphics cannot be easily removed, hence, it is preferable.

**[0022]** In this case, as long as the filth collecting member 2 and the filth containing member 3 are joined together in a separable manner, these members may not necessarily be joined together by the perforation. In addition, the perforation may not necessarily be formed to be approximately linear. The perforation may be formed in an arch shape, for example. However, the approximately linear shape is preferable because the shape is larger in strength than the arch shape.

**[0023]** As long as the filth collecting member is brought into a U-shape, the notches may not necessarily be formed. For example, it may be possible that a male (hook) part of a hook-and-loop fastener and a female (loop) part thereof are attached on the same plane on the right and left sides, or a male (top) part of a snap button and a female (bottom) part thereof are attached on the same plane on the right and left sides.

**[0024]** Furthermore, as long as the filth collecting member and the filth containing member are water-soluble, the filth collecting member and the filth containing member may not be composed of water-soluble paper manufactured by Mishima Paper Co., Ltd. (type: 60CD-2, dispersion time: 60 seconds, specific gravity: 0.5 g/cm<sup>3</sup>, and paper surface pH: 10 to 12). However, the configuration of a water-soluble material of which dispersion time is very short (35 seconds or less) causes inconvenience. Thus, these members are preferably composed of a water-soluble material of which dispersion time is 60 seconds or more. Furthermore, water-soluble paper of which specific gravity is 0.4 to 0.6 g/cm<sup>3</sup> and paper surface pH is 10 to 12 may be used.

**[0025]** Subsequently, a description will be given of a usage example of the disposable bag to which the present invention is applied.

**[0026]** When a dog deposits excrement while the dog is taking a walk, the carried disposable bag 1 to which the present invention is applied is taken out and the filth collecting member 2 and the filth containing member 3 are kept apart along the perforation 5 as shown in Fig. 1B. Subsequently, the notches 4 formed in the filth collecting member 2 are engaged with each other so that the filth collecting member 2 is formed in a U-shape as shown in Fig. 1C. The engaged portion is held by hand and the excrement 7 is picked up with the filth collecting member 2 formed in a U-shape as if to pick up with a scoop. Alternatively, unengaged outer edges of the filth collecting member are used to grab the excrement 7 to collect the excrement 7 as if to use tongs, and only the excrement 7 is placed into the filth containing member 3. Alternatively, the excrement 7 and the filth collecting member 2 as well are placed into the filth containing member 3. Thereafter, fingers are inserted through the through-holes 6 of the filth containing member 3 to carry the filth containing member 3 containing the excrement 7 as if to carry a handbag. Subsequently, the filth containing member 3 containing the excrement 7 is disposed of by being directly flushed down a public toilet or a domestic-use toilet.

**[0027]** In Figs. 2A to 2C, shown are schematic views showing another embodiment of a disposable bag to which the present invention is applied. The disposable bag, shown in Fig. 2A, to which the present invention is applied, is different from the disposable bag shown in Fig. 1 only in that slits 8 are formed in the vicinity of and approximately parallel to each of the respective notches 4. The slits 8 are formed in positions into which corners in the vicinity of the notches 4 of the filth collecting member 2 are folded when the notches 4 are engaged with each other.

**[0028]** As shown in Fig. 2B, the filth collecting member 2 separated from the filth containing member 3 is brought into a U-shape by engaging the notches 4 with each other, and as shown in Fig. 2C, the corners in the vicinity of the notches 4 of the filth collecting member 2 are folded into the slits 8.

**[0029]** Thus, in the disposable bag to which the present invention is applied, the water-soluble filth collecting member and the water-soluble filth containing member are joined together in a separable manner, and the U-shape formation means for bringing the filth collecting member into a U-shape are formed in the filth collecting member. Therefore, the filth collecting member is kept apart from the filth containing member to use the filth collecting member like a scoop. Thus, it is possible to pick up and collect the filth, without grabbing the filth by hand. As a result, a feeling of the filth is hardly sensed, and the disposable bag and the filth contained therein as well can be disposed of into drainage water. Furthermore, the filth collecting member is formed in a U-shape, so

that the unengaged two outer edges can serve to grab and collect the excrement as if to use tongs.

**[0030]** Furthermore, the perforation, which is a joint between the filth collecting member and the filth containing member, is formed to be approximately linear, and the through-holes are formed in the vicinity of the joint of the filth containing member. Thus, the filth containing member containing the filth can be easily carried by inserting fingers through the through-holes as if to carry a handbag, and since a holding portion is made approximately linear, the holding portion has larger strength as compared to an arch-shaped holding portion.

**[0031]** Furthermore, the U-shape formation means are notches formed at the two edges of the filth collecting member, so that by engaging the notches with each other, the filth collecting member can be brought into a U-shape. In addition, upon manufacturing the disposable bag of the present invention, it is possible to form the U-shape formation means without a special process or member.

**[0032]** The slits are formed in the filth collecting member, and the slits are formed in positions into which the corners in the vicinity of the notches of the filth collecting member are folded when the notches are engaged with each other, thereby the engaged portion is made rounded. Thus, it becomes easy to hold by hand, and this results in easy collection of the excrement.

## Claims

1. A disposable bag for containing and disposing of filth, formed such that a water-soluble filth collecting member and a water-soluble filth containing member are joined together in a separable manner, wherein U-shape formation means for bringing the filth collecting member into an approximate U-shape is formed in the filth collecting member.
2. The disposable bag according to Claim 1, wherein a joint between the filth collecting member and the filth containing member is approximately linear and through-holes are formed in the vicinity of the joint of the filth containing member.
3. The disposable bag according to Claim 1 or 2, wherein the U-shape formation means are notches formed at two edges of the filth collecting member.
4. The disposable bag according to Claim 3, wherein the notches are formed in positions apart from the joint between the filth collecting member and the filth containing member.
5. The disposable bag according to Claim 3, wherein slits are formed in the filth collecting member, and the slits are formed in positions into which corners

in the vicinity of the notches of the filth collecting member are folded when the notches are engaged with each other.

6. The disposable bag according to Claim 1, wherein the filth collecting member and the filth containing member are composed of water-soluble paper of which dispersion time is 60 seconds or more. 5
7. The disposable bag according to Claim 1, wherein the filth collecting member and the filth containing member are composed of water-soluble paper of which paper surface pH is 10 to 12 and specific gravity is 0.4 to 0.6 g/cm<sup>3</sup>. 10
8. The disposable bag according to Claim 1, wherein the filth collecting member and the filth containing member comprise printing areas printed by 100% vegetable oil-based ink. 15

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FIG.1A

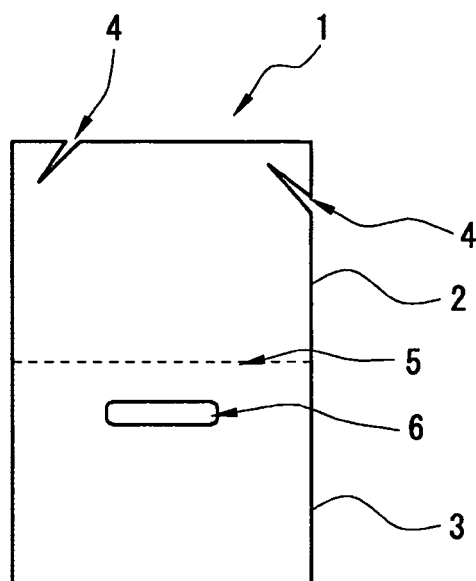


FIG.1B

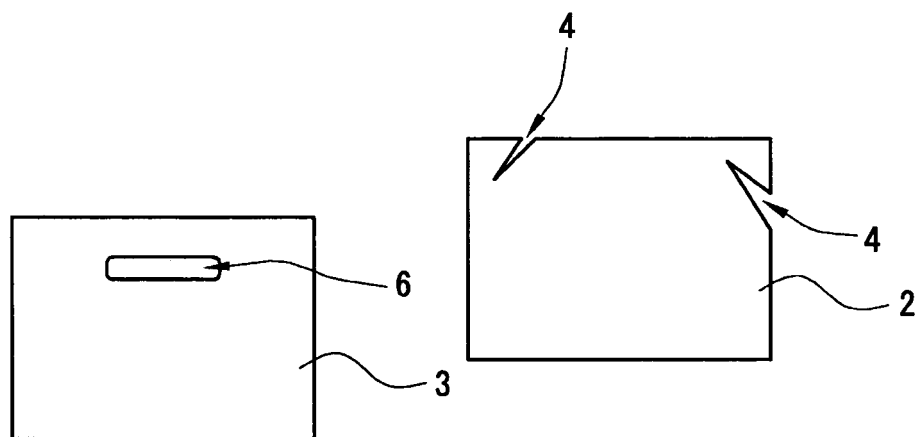


FIG.1C

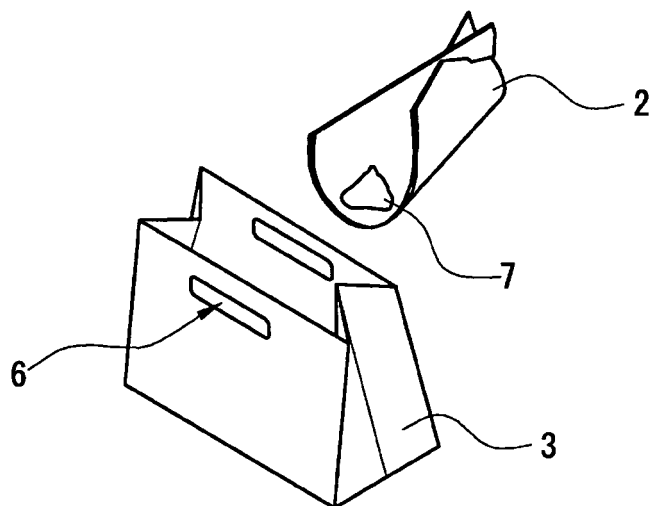


FIG.2A

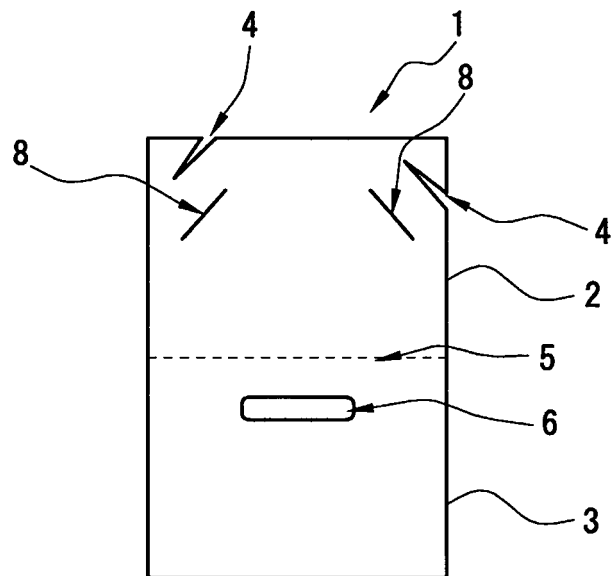


FIG.2B

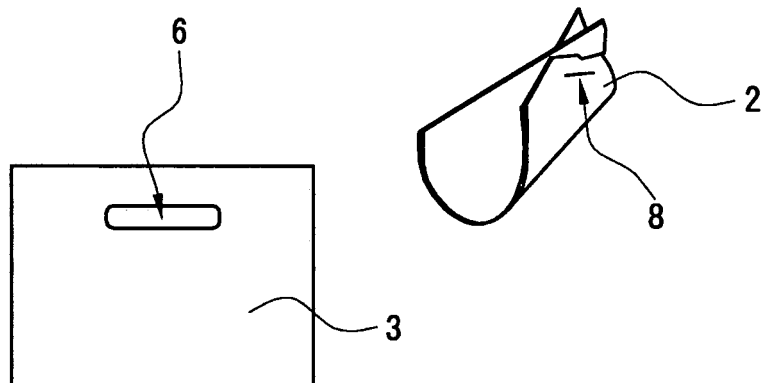
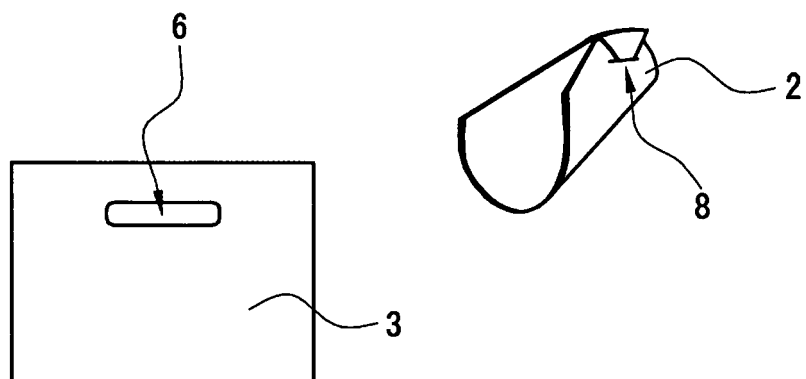
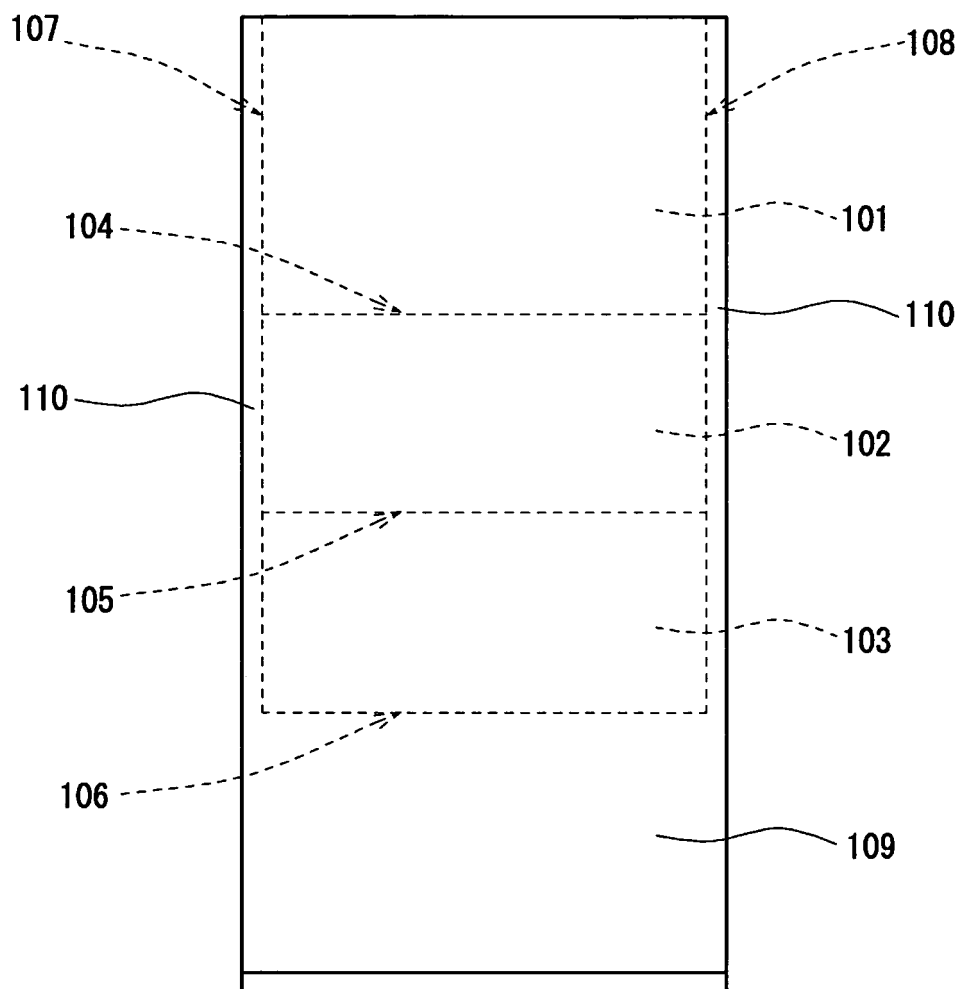


FIG.2C







F I

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2006/321844

## A. CLASSIFICATION OF SUBJECT MATTER

A01K23/00(2006.01) i

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)

A01K23/00, E01H1/12

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

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2006

Kokai Jitsuyo Shinan Koho 1971-2006 Toroku Jitsuyo Shinan Koho 1994-2006

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5865486 A (Eliezer Bussani), 02 February, 1999 (02.02.99), (Family: none)	1 - 8

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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Date of the actual completion of the international search  
15 November, 2006 (15.11.06)Date of mailing of the international search report  
21 November, 2006 (21.11.06)Name and mailing address of the ISA/  
Japanese Patent Office

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**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- JP 3038652 B [0006]