



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
13.11.2013 Bulletin 2013/46

(51) Int Cl.:
B65D 75/20 (2006.01)

(21) Application number: **12305520.4**

(22) Date of filing: **10.05.2012**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(72) Inventor: **Moreira, Frédéric**
95210 Saint-Gratien (FR)

(74) Representative: **Quantin, Bruno Marie Henri Santarelli**
14 Avenue de la Grande Armée
B.P. 237
75822 Paris Cedex 17 (FR)

(71) Applicant: **Oberthur Technologies**
92300 Levallois-Perret (FR)

(54) **Packaging with tamper proof feature**

(57) Packaging in the form of a wallet (100), generally shown in Figure 1, having first and second covers (20,21) joined along a common hinged edge (60). The first cover (20) has one or more fastening elements and the second

cover (21) is arranged to receive the fastening element (s). There is also a securing means to attach to the element(s) so that if the element(s) are removed the securing element removes part of the second cover (21).

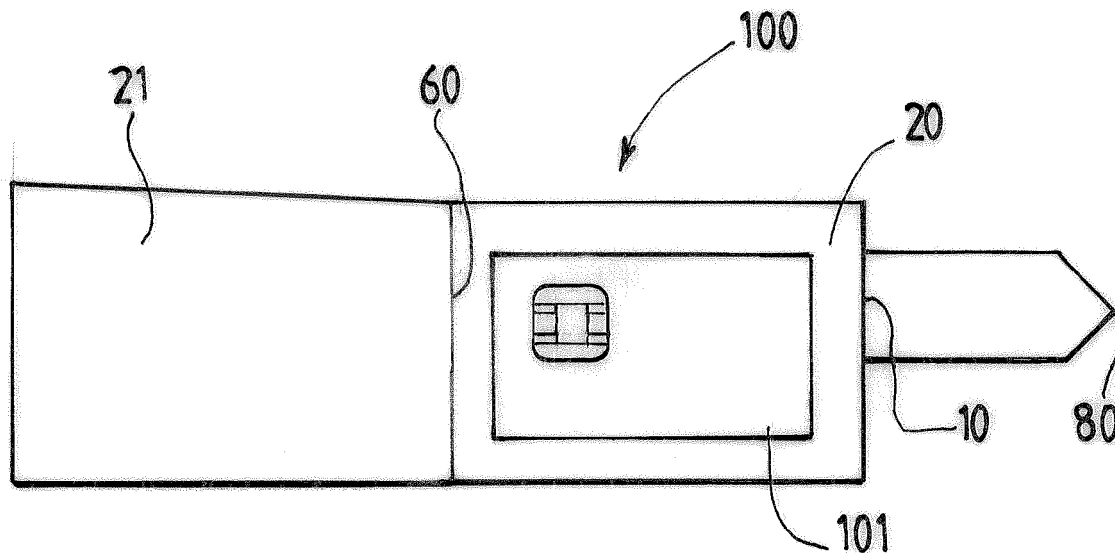


FIG. 1

Description

Field of the Invention

[0001] The invention relates to packaging with a tamper proof feature that is used particularly, but not exclusively, with chip and/or magnetic stripe cards.

Background of the Invention

[0002] Chip and/or magnetic stripe cards are products that are typically used as access cards for GSM cellular networks used in industries such as the banking industry or other industries where access is restricted to a card holder. Typically such cards are referred to as SIM cards (Subscriber Identification Module). SIM cards have an integrated semiconductor device (chip) or on a magnetic strip and are assigned with a unique card number that is associated with a particular person.

[0003] When cards are produced the final production step is the process of sending the card in a secure way to the card issuer (network operators, service providers, health insurers, banks), who then send the card to a specified user.

[0004] For personal cards, the card is individually, packaged for the individual user prior to the card being distributed to the user. For certain card types, such as telephone cards, which do not have a personal reference, the cards are shipped in bulk to the card issuer.

[0005] For personal cards the cards are fixed to pre-cut tabs that are on a pre-printed letter-headed sheet of paper. The sheet of paper is then folded and inserted in an envelope. A disadvantage of this type of packaging is that the use of a thin sheet of paper provides no protection to the chip and/or magnetic stripe cards and the card may become detached from the paper which leaves the card vulnerable to being intercepted or tampered with as there is no indication as to how the card may have become separated from the paper.

[0006] Cards may be sent in pre-formed envelopes together with information about the card but such envelopes could be opened and resealed without the recipient noticing, so they do not provide a tamper proof way of sending secure documents such as bank or SIM cards.

[0007] The current invention seeks to overcome the problems with the prior art by providing packaging for documents that need to be distributed securely, such as bank cards and which also have a tamper proof feature that gives a clear indication to the recipient of the secure document as to whether tampering has occurred.

Summary of the Invention

[0008] According to a first aspect of the invention there is provided packaging having a tamper proof feature, said packaging comprising:

a first and a second cover connected together by a

first hinge, the first and/or the second cover including one or more fastening elements arranged to hold a planar item on the respective cover; and

a tongue connected to the first or second cover by a second hinge and arranged to reversibly fasten closed the first and second covers when the first and second covers are folded over each other, wherein:

the packaging includes a securing element so that the tongue can be fastened to a portion of the first or second cover, such that on the first subsequent occurrence of the tongue being removed, at least a portion of the packaging is separated from the packaging to provide a visual indication that the packaging has been opened, said visual indication remaining visible in the event of the first and second covers being re-fastened by the tongue.

[0009] Preferably the securing element comprises an adhesive on one of the tongue and first or second cover.

[0010] It is envisaged that the adhesive is not repositionable under normal use.

[0011] In a preferred arrangement the first or second cover includes a slot arranged to receive the tongue when the packaging is folded closed and the securing element is arranged to restrain the tongue within the slot.

[0012] It is envisaged that the securing element comprises an elongate strip fastened at one end to the tongue and fastened at the opposite end to the portion of the respective cover.

[0013] In a preferred arrangement the strip extends through the slot.

[0014] It is preferred that the securing element comprises an elongate strip fastened to the respective cover and extending across the tongue when the tongue is located in the slot.

[0015] Preferably the planar item is a card having a chip module or magnetic strip.

[0016] Preferably the second cover further includes a document pouch formed on an inner surface of the second cover when the first and second covers are folded over each other.

[0017] It is envisaged that the pouch has an opening on the side of the first hinge.

[0018] Preferably the portion of the second cover to which the tongue is arranged to be adhered to is defined by one or more perforations arranged to tear away from the second cover when the tongue is removed from the slot.

[0019] In a preferred arrangement the fastening element comprises a planar item retaining flap connected to the first cover by a hinge and arranged to be folded over the first cover to form a planar item retaining pocket.

[0020] Preferably the planar item retaining flap includes a cut-out such that a planar item held in the retaining pocket is visible when the first and second covers

are unfolded.

[0021] It is envisaged that the second cover comprises first and second sheets of material adhered to one another to form an open space between said sheets, the slot being formed in one of the first and second sheets only.

[0022] In a further aspect of the invention there is provided a packaging blank for forming a planar item packaging, the die comprising:

a first sheet having a tongue element connected along a portion of a first edge of the first sheet;

a second sheet connected to the first sheet along a second edge of the first sheet, the second edge being opposite the first edge and having a slot formed therein arranged to receive the tongue element, wherein;

the tongue element includes an adhesive portion and the second sheet includes a portion arranged to be adhered to the adhesive portion of the tongue when the tongue is inserted in the slot.

[0023] The invention seeks to provide, in a preferred arrangement packaging for a planar element such as a card having an electronic module or any other item, such as a passport that has inherent security features, a tamper proof feature, where the packaging has:

a first cover including one or more fastening elements arranged to hold a planar item on the first cover;

a second cover connected to the first cover by a first hinge and having a slot formed therein; and

a tongue connected to the first cover by a second hinge and arranged to be inserted in the slot in the second cover when the first and second covers are folded over each other, wherein:

the packaging includes an securing element so that the tongue can be fastened to a portion of the second cover when the tongue is inserted in the slot, such that when the tongue is subsequently removed from the slot at least some of the portion of the second cover is separated from the second cover.

Brief Description of the Figures

[0024] An embodiment of the invention will now be described by way of illustration only of the invention, in which:

Figure 1 shows: packaging which is in an open position including a planar element;

Figure 2 shows: packaging as shown in Figure 1 in the closed position;

Figure 3 shows: a more detailed view of a securing element attached to a tongue used to secure the packaging in the closed position;

Figure 4 shows: a side view of the packaging shown in Figure 3;

Figure 5 shows: a plan view of packaging which includes a pocket for a planar item;

Figure 6 shows: a detailed illustration of a securing element as shown in Figure 5;

Figure 7 shows a blank for packaging according to an embodiment of the invention;

Figure 8 shows: another blank which can be folded to form an integral pocket;

Figure 9 shows: a further blank having half panels for securing a planar item in place;

Figure 10 shows: a further blank in which the covers are of a double thickness and there is also an integral pocket;

Figure 11 shows: an alternative arrangement where the tongue is attached to the outside of a cover.

Detailed Description of an Embodiment of the Invention

[0025] Figure 1 illustrates a packaging according to an embodiment of the present invention. The packaging is in the form of a wallet, generally shown as 100 having first and second covers 20, 21 joined along a common edge 60, the common edge forming a hinge allowing the first and second covers to be folded between an open configuration, as illustrated in Figure 1, and a closed configuration. The first cover 20 has one or more fastening elements (not shown) arranged to hold a planar element 101, such as a credit card or identity card or the like, to the surface of the second cover that is to be presented to a user when the wallet is in the open configuration. The fastening elements may include one or more slots in the second cover 20 arranged to receive respective corners of the chip card. Alternatively, the fastening elements may include one or more adhesive sections. However, the fastening elements preferably allow the chip card to be easily removed from the packaging without causing damage to the card itself. Other arrangements for holding the chip card to the first cover will be explained below in relation to the further figures. A tongue 80 or sealing tab is connected to the first cover by a second hinge 10, formed from a common edge of the tongue 80

and a portion of the second cover. The first hinge connecting the first and second covers and the second hinge connecting the first cover and sealing tongue are preferably on opposite edges of the first cover.

[0026] Figure 2 illustrates the packaging of Figure 1 in the folded, or closed, configuration in which the second cover 21 has been folded over the first cover 20 along the first hinge 60. In this configuration the chip card held on the first cover is protected from damage and dust and dirt. The tongue 80 is folded over the second cover 21 about the second hinge 10 and the free end of the tongue is inserted in a slot 12 formed in the second cover. By inserting the tongue in the slot the packaging is effectively held in the closed configuration.

[0027] Also formed on the second cover is an area or portion 14 bounded and defined by a line of weakness 16, such as a line of perforations or indentations. This area 14 extends across the region of the second cover upon which the tongue 80 is folded when the tongue is inserted in the slot 12 to hold the packaging wallet closed. The tongue 80 is connected to the area 14 of the second cover such that removing the tongue from the slot 12 exerts a force on the area of the second cover such that the area is detached or torn from the second cover. In some embodiments the tongue may be secured to the area 14 after insertion of the tongue into the slot 12 by an adhesive portion formed on the tongue 80 or the area 14.

[0028] Figure 3 shows a side view of the wallet when partially open. The tongue 80 extends from first cover 20 and can be brought towards the second cover which has slot 12. There is a securing strip 90 which is positioned across area 14 whilst leaving a portion of the slot 12 free so the end of the tongue 80 can be inserted in the slot. Once the tongue is in the slot 12, the securing strip 90 will be held across the perforated area 14.

[0029] The arrangement can be seen in the side view shown in Figure 4. The tongue 80 extends from the first cover 20 and extends over the end of the second cover 21. Strip 90 can be secured to the tongue 80 and also it is secured to the second cover 21. In a preferred arrangement the securing strip 90 is secured to cover 21 on the area on the second cover where there are perforations 14 and is preferably inserted in the slot 12 and secured to the opposite surface of the second cover to the surface that the tongue 80 folds over. Figures 5 to 10 show various blanks that can be used for the present invention. Figure 5 shows a plan view of an arrangement which includes a pocket, or pouch, for holding documents in addition to a planar structure. The main part of the blank is formed of five flaps. First and second flaps 2, 1 form first and second covers. To strengthen the structure, by forming a double layer, flaps 5 and 6 are folded over and attached to flaps 2 and 3 respectively. Flap 5 is preferably fastened to flap 2 around the edges of the flaps only so that the two flaps form an open pocket. A planar structure such as a card may be inserted into the formed pocket but still be visible through the cut out area d which is

formed in flap 5. Attached panels 2 and 5 form the first cover 20. There is an attachment element 8, the ends of which 8' and 8" include adhesive portions. The adhesive is selected such that under normal use and conditions it is irreversible. The first end of the element 8' is stuck to flap 1 adjacent to the slot 12, with the remainder of the attachment element being inserted through the slot. Flap 1 is subsequently fastened to flap 7 to form the second cover 21, and additionally enclosing the first end 8' of the attachment element. Flap 4 may be folded over an attached around its edges to flap 7 after flap 7 has been attached to flap 1, thus forming a further pocket within the wallet. The end flaps 3 and 6 are joined together to form a double layer tongue and the first and second covers are folded together. The second end of the attachment element 8" is attached to the underside (flap 6) of the tongue and the tongue is inserted through slot 12, so securing the tongue in place.

[0030] In Figure 6, the attachment element 8 is again in the form of an elongate strip with adhesive at opposite ends 8' and 8". In this case, there is a pre-cut panel 14 and the end 8' of the strip 8 is positioned on the panel 14 so that if the attachment element is pulled it will also pull on the panel 14, which if damaged or removed will indicate that the packaging has been tampered with, or if it has been previously opened which will alert the recipient to check what has happened to the packaging.

[0031] As shown in Figure 7, panels 4 and 1 are folded and secured by adhesive 4a around the periphery of the two free edges of the panel. The adhesive 4a could be replaced by a flap, for example like the flap 40. This has the advantage that this folding process is sufficient to form a "pouch" to receive brochures or to provide protection when tongue flap 3 is inserted in slot 12. Panels 1 and 4 are folded against panel 2 and closed by tongue flap 3 being inserted in slot 12.

[0032] In Figure 8 another blank is shown. Flaps 2 and 5 are folded towards one another and secured. A planar element such as a card is inserted into cut out "d" formed in panel 5. Panels 1 and 4 are secured so we now have a wallet formed of first and second covers, with a further optional pouch or pocket formed between flaps 1 and 4. Panels 1 and 4, and 2 and 5 are folded together to form a closed wallet and the wallet is closed by inserting the tongue 3 through the slot 12.

[0033] In Figure 9 the blank is formed of 3 main panels 1, 2 and 4 but the fourth panel is made up of two half panels 5a and 5b. A card is placed on panel 2 and panels 5a and 5b are folded over the card. Panels 1 and 4 are folded and secured together. Combined panels 1 and 4 are subsequently folded over and secured to panel 2 which has panels 5a and 5b folded over it. The whole arrangement is secured by inserting the tongue 3 through the slot 12.

[0034] As shown in Figure 10 the blank is formed of five main panels. Panel 5 with tab 6 is folded and secured to panel 2 having tab 3. A planar element such as a card is inserted into the cut out "d" formed in panel 5. The

edge of panel 7 is adhered to panel 1 so that when the tongue 80 that is formed of tabs 3 and 6 is inserted in slot 12 (that is in panel 1) the tongue is protected. Panels 1, 4 and 7 are secured to make second cover 21 and panels 2 and 5 form first cover 20. The covers 21 and 20 provide a wallet that is reversibly closed by inserting tongue 80 into the slot 12.

[0035] Finally, in further embodiments as shown in **Figure 11**, there is no slot formed the second cover and the tongue is simply secured to the outer surface of the second cover by an alternative attachment element 108 extending across the width of the tongue and secured at either end to the outer surface of the second cover 21, preferably by adhesive portions 108' & 108" and additionally secured by a further adhesive portion 108''' located between the outer adhesive portions to the tongue. In this manner the alternative attachment element 108 must be broken, or the surrounding outer surface of the second cover 21 torn, to allow the wallet to be opened, thus making it visibly clear that the wallet has been opened. Alternatively, the tongue may simply be directly secured to the outer surface of the cover, for example using an adhesive portion extending over at least a portion of the tongue or the cover. The adhesive portion may be irreversible (under normal operating conditions) or may be reversible, for example a medium or low tack adhesive. However, the adhesive must be strong enough to tear the portion of the cover when the tongue is initially removed.

[0036] Whilst in the illustrated embodiments it has been shown that the card, or other planar item, is fastened or held to the first cover, it will of course be appreciated that the packaging could easily be formed such that the card is held to the second cover. Equally, the tongue may be hinged to either the first or second covers, with the slot formed in the appropriate other cover.

[0037] It is to be understood that the above embodiments have been provided only by way of exemplification of this invention, such as those detailed below, and that further modifications and improvements thereto, as would be apparent to persons skilled in the relevant art, are deemed to fall within the broad scope and ambit of the present invention described. Furthermore where individual embodiments are discussed, the invention is intended to cover combinations of those embodiments as well.

Claims

1. Packaging having a tamper proof feature, said packaging comprising:

a first and a second cover connected together by a first hinge, the first and/or the second cover including one or more fastening elements arranged to hold a planar item on the respective cover; and

a tongue connected to the first or second cover by a second hinge and arranged to reversibly fasten closed the first and second covers when the first and second covers are folded over each other, wherein:

the packaging includes a securing element so that the tongue can be fastened to a portion of the first or second cover, such that on the first subsequent occurrence of the tongue being removed, at least a portion of the packaging is separated from the packaging to provide a visual indication that the packaging has been opened, said visual indication remaining visible in the event of the first and second covers being re-fastened by the tongue.

2. Packaging according to claim 1, the securing element comprises an adhesive on one of the tongue and first or second cover.
3. Packaging according to claim 2, wherein the adhesive is not repositionable under normal use.
4. Packaging according to claim 1, wherein the first or second cover includes a slot arranged to receive the tongue when the packaging is folded closed and the securing element is arranged to restrain the tongue within the slot.
5. Packaging element according to claim 4, wherein the securing element comprises an elongate strip fastened at one end to the tongue and fastened at the opposite end to the portion of the respective cover.
6. Packaging element according to claim 5, wherein the strip extends through the slot.
7. Packaging element according to claim 4, wherein the securing element comprises an elongate strip fastened to the respective cover and extending across the tongue when the tongue is located in the slot.
8. Packaging according to any preceding claim wherein the planar item is a card having a chip module or magnetic strip.
9. Packaging according to any preceding claim wherein the second cover further includes a document pouch formed on an inner surface of the second cover when the first and second covers are folded over each other.
10. Packaging according to claim 9, wherein the pouch has an opening on the side of the first hinge.

11. Packaging according to any preceding claim wherein the portion of the second cover to which the tongue is arranged to be adhered to is defined by one or more perforations arranged to tear away from the second cover when the tongue is removed from the slot. 5
12. Packaging according to any preceding claim wherein the fastening element comprises a planar item retaining flap connected to the first cover by a hinge and arranged to be folded over the first cover to form a planar item retaining pocket. 10
13. Packaging according to claim 12, wherein the planar item retaining flap includes a cut-out such that a planar item held in the retaining pocket is visible when the first and second covers are unfolded. 15
14. Packaging according to any preceding claim wherein the second cover comprises first and second sheets of material adhered to one another to form an open space between said sheets, the slot being formed in one of the first and second sheets only. 20
15. A packaging blank for forming a planar item packaging, the die comprising: 25
- a first sheet having a tongue element connected along a portion of a first edge of the first sheet; a second sheet connected to the first sheet along a second edge of the first sheet, the second edge being opposite the first edge and having a slot formed therein arranged to receive the tongue element, wherein; 30
- the tongue element includes an adhesive portion and the second sheet includes a portion arranged to be adhered to the adhesive portion of the tongue when the tongue is inserted in the slot. 35

40

45

50

55

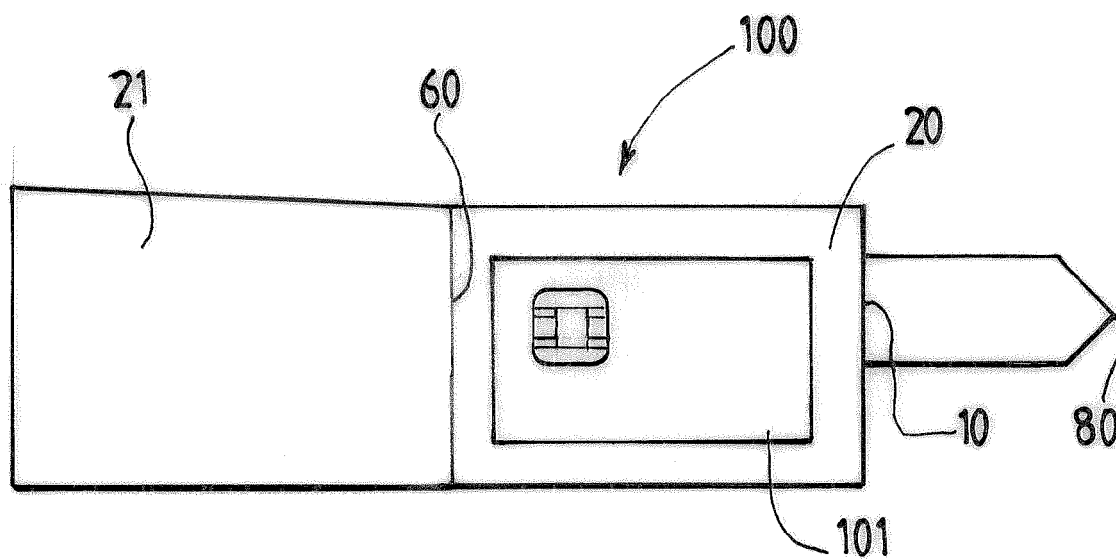


FIG.1

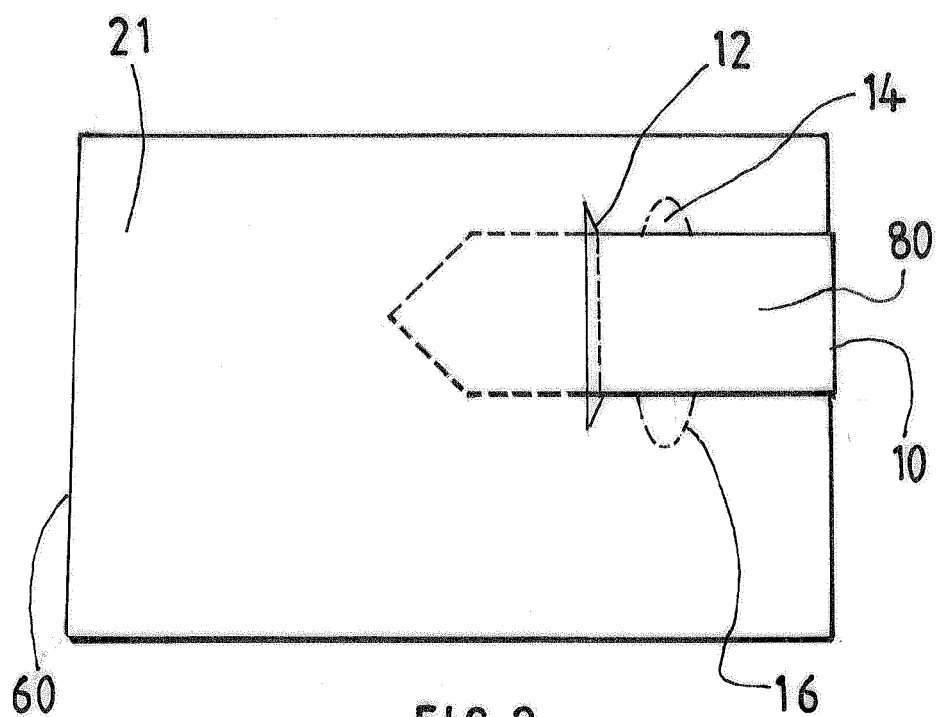
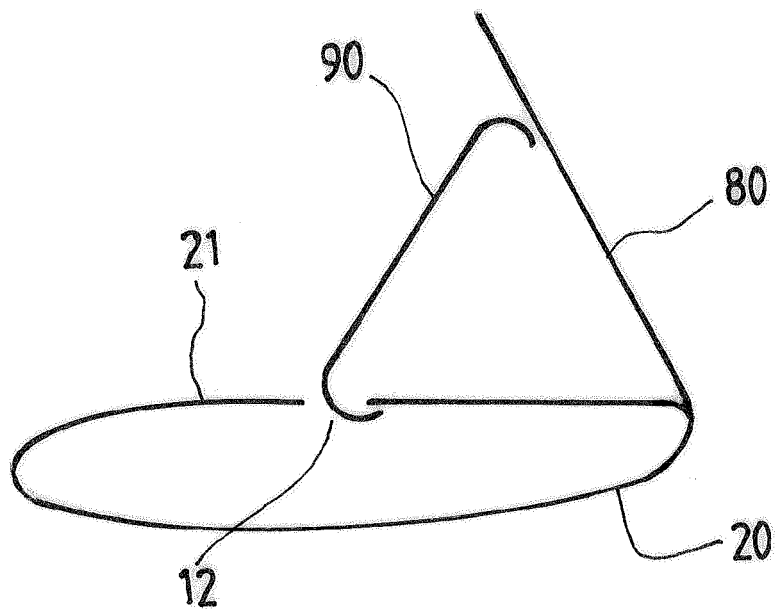
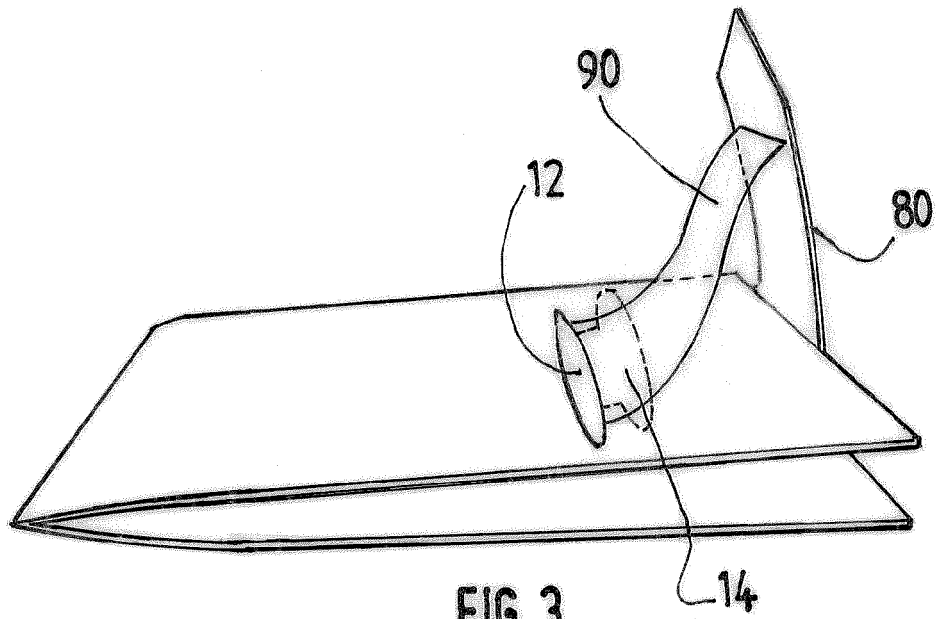


FIG.2



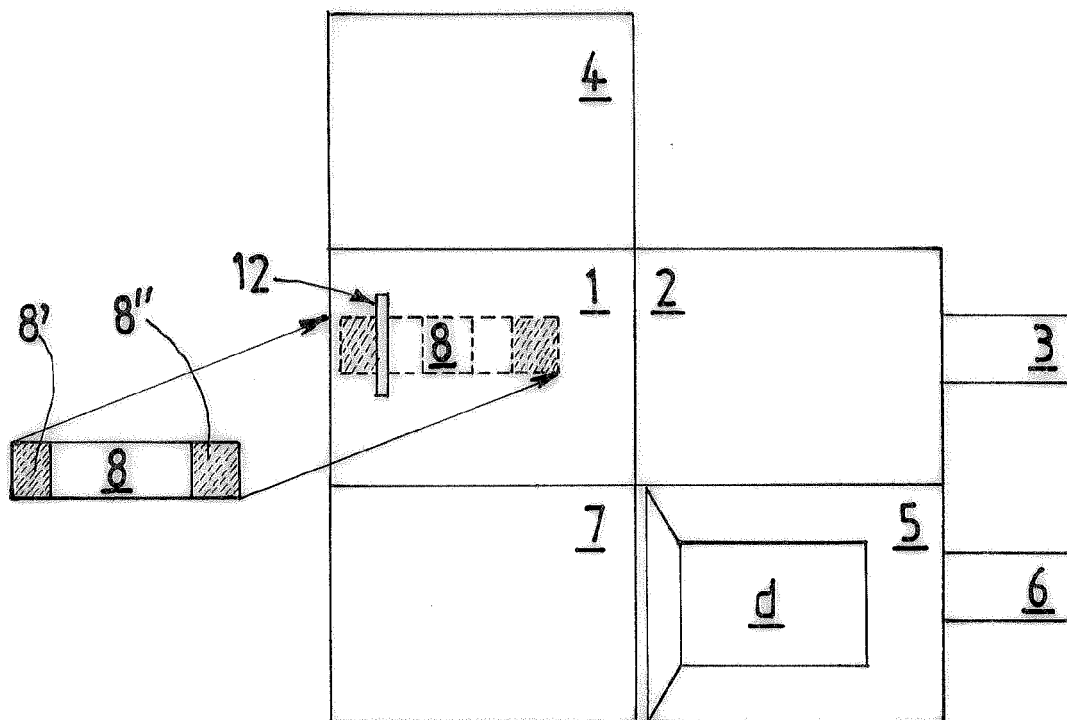


FIG. 5

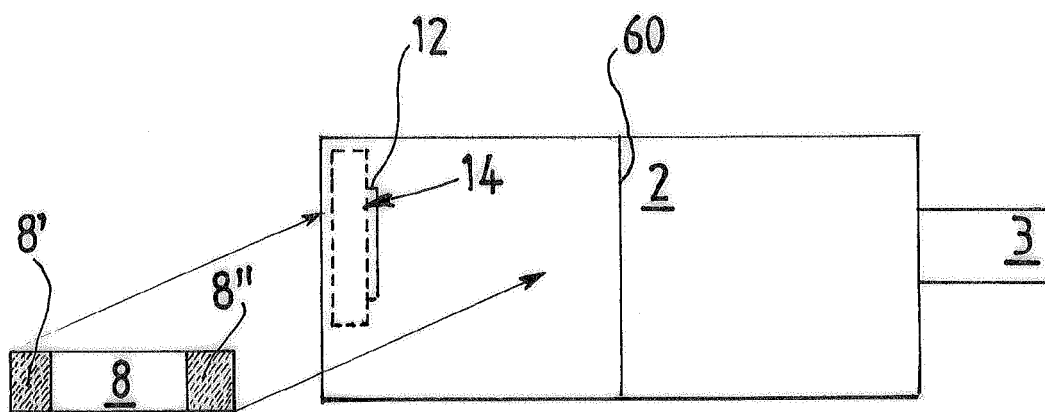


FIG. 6

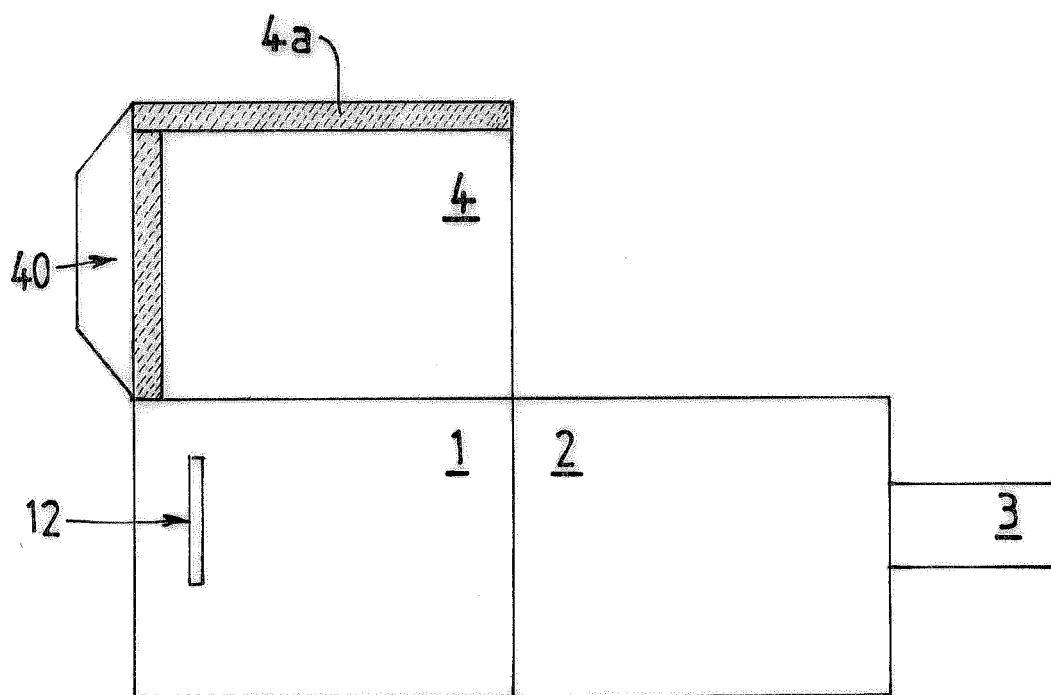


FIG. 7

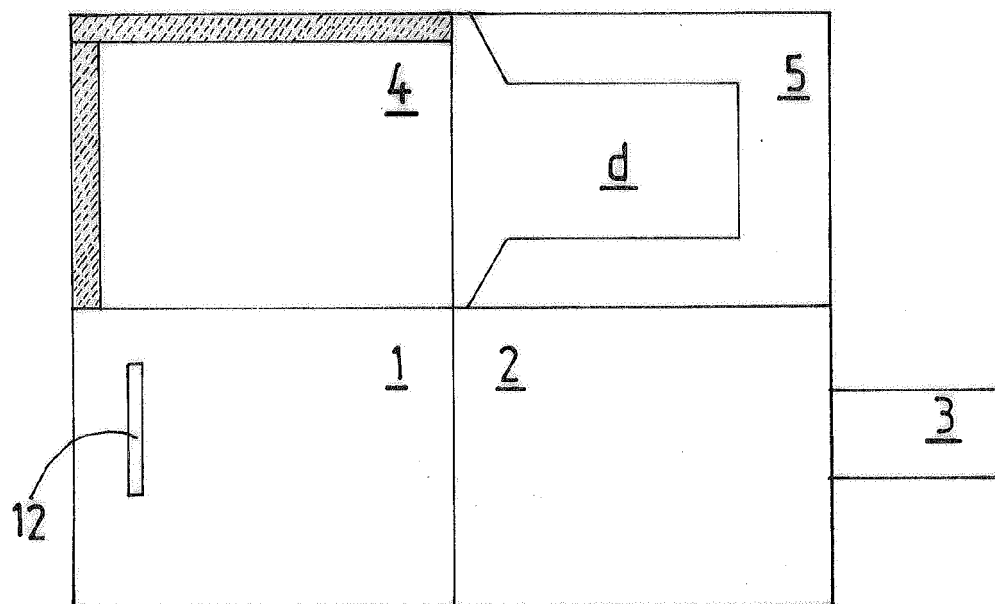


FIG. 8

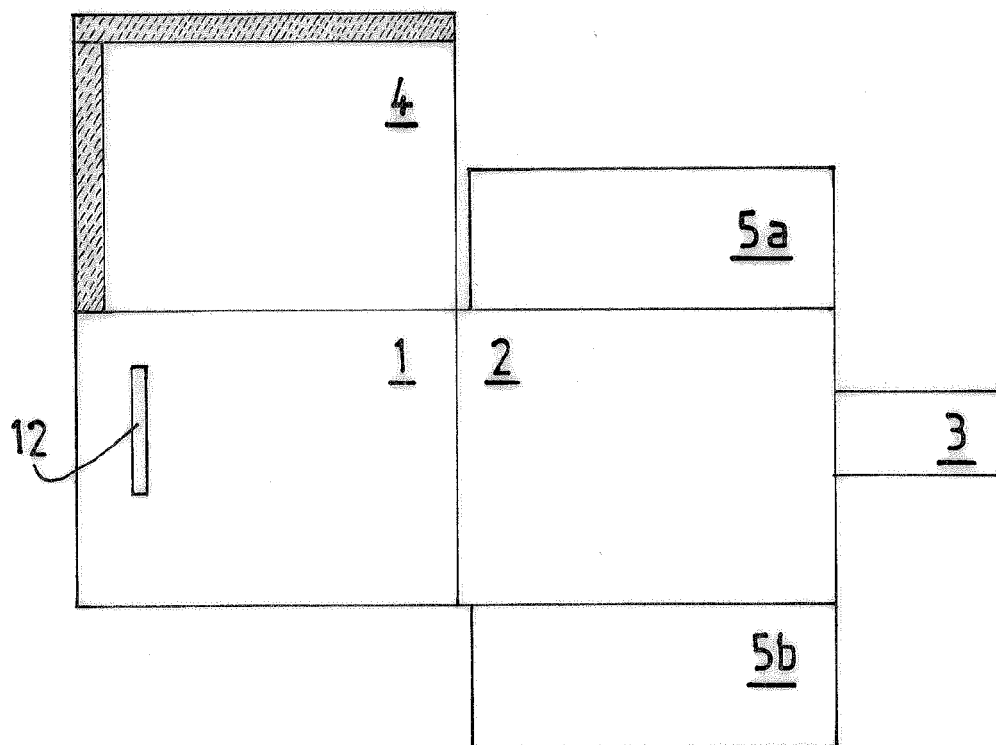


FIG. 9

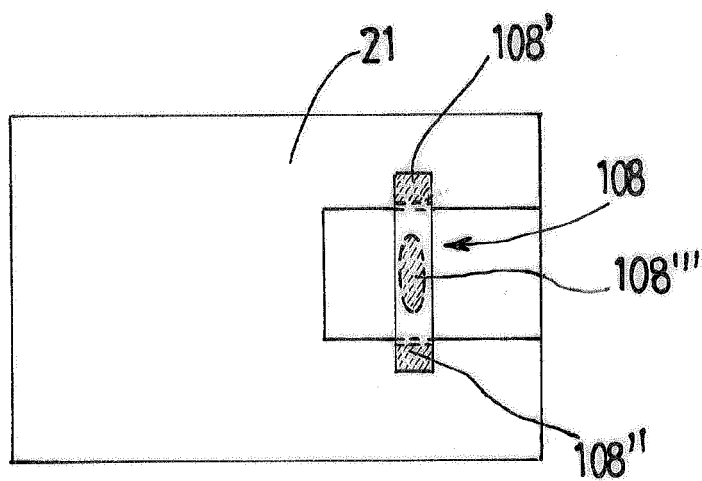


FIG. 11

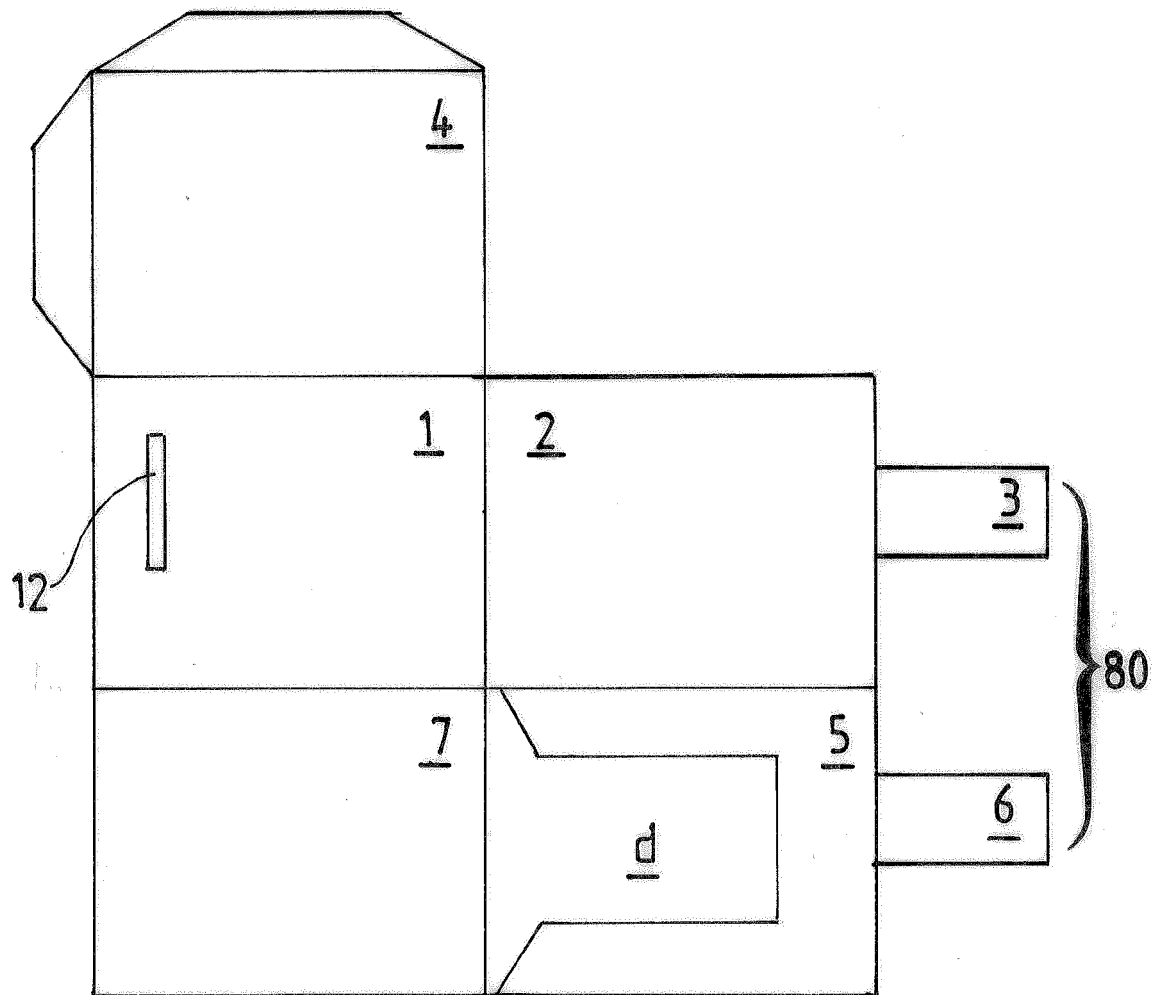


FIG. 10



EUROPEAN SEARCH REPORT

Application Number
EP 12 30 5520

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 2009/107862 A1 (PASCUA SHELLE B [US] ET AL) 30 April 2009 (2009-04-30) * abstract; figures 1,2,4-9 * * paragraph [0028] - paragraph [0048] * -----	1-15	INV. B65D75/20
Y	GB 2 421 019 A (AQUASOL LTD [GB]) 14 June 2006 (2006-06-14) * abstract; figures 1,2 * * page 5, paragraph 2 - last line * * page 3, paragraph 4 * -----	1-15	
A	FR 2 771 713 A1 (DJERMOUNE DJAMAL [FR]) 4 June 1999 (1999-06-04) * abstract; figures 1-7 * * page 2, line 22 - page 4, paragraph 3 * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 13 September 2012	Examiner Segerer, Heiko
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			

 2
EPO FORM 1503 03.82 (P04C01)

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

EP 12 30 5520

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.

13-09-2012

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2009107862	A1	30-04-2009	NONE	

GB 2421019	A	14-06-2006	NONE	

FR 2771713	A1	04-06-1999	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82