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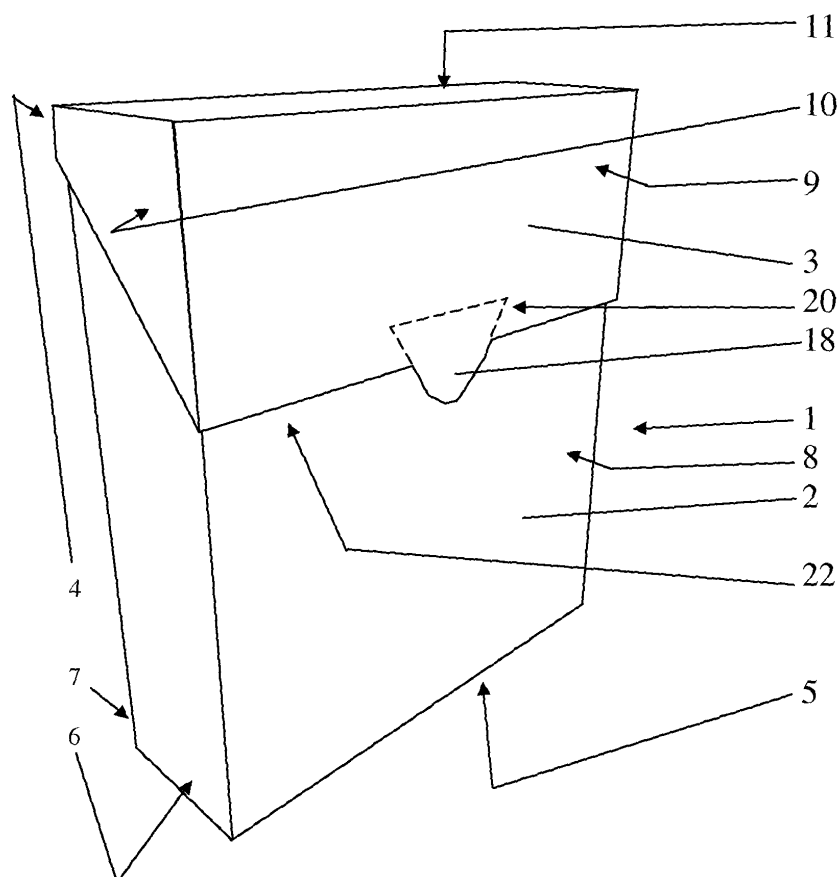
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(54) **Sealed box**

(57) A box (1) for pastilles, including a container (2) and a pivotable lid (3) attached to the container (2). The

box (1) is provided with a sealing between lid and container in order to maintain a closed condition of the lid on the container.

**FIG. 1**



## Description

### Field of the Invention

**[0001]** The present invention concerns a box for pastilles with a container and a lid which is pivotably attached to the container, where the box is provided with a sealing between a part of the lid and the container for maintaining a closed condition of the lid on the container, and where the said lid part is connected to the rest of the lid via a perforation to be broken for opening the lid, and where the said lid part is a flap fastened to one of the sides of the container by means of the sealing.

### Description of Prior Art

**[0002]** Pastille boxes for lozenges, chewing gum and liquorice are sold in large numbers and are typically designed as a small cardboard box with pivoting lid, where the pivoting lid frequently is designed with a snap or spring lock, e.g. as described in GB 1,467,256 or in International patent application WO 94/10048. Boxes of this kind are also often called flip top boxes.

**[0003]** For safety reasons, the cardboard box is packed with a sealed plastic film in order to show that the box has not been opened yet. In technical language, this is termed "tamperproof". In order to get access to the contents of the box, this film has to be broken.

**[0004]** This system has its historical grounds in traditional making of cigarette packings, and packing apparatuses for pastille packings are similar to packing apparatuses for tobacco and cigarette packings. However, there is the difference between pastille packings and tobacco/cigarette packings that the pastilles do not lie according to a sorted pattern in the packing. Pastilles may e.g. lie in the packing such that a hard and sharp, almost pointed elevation appears in the packing during the transport through the packing apparatus.

**[0005]** As the traditional packing apparatuses are very sensitive to variations in the dimensions of the packings, this often gives rise to problems during the film packing operation and leads to interruption of production.

**[0006]** It would thus be desirable if there were other ways of providing a sealing which ensure a unmistakable indication of unbroken packing for the user and which at the same time relieves the problems with interruption of the production.

**[0007]** This is known, for example, from EP 0 443 930 which discloses a box of the type mentioned in the introduction. However, this box does not enable using the elements of the box itself for advertisements for the producer or the product.

### Purpose of the Invention

**[0008]** Therefore, it is the purpose of the invention to provide a box for pastilles which has a secure sealing causing the box to be tamperproof, and where advertising

for a producer or a product may be achieved.

### Description of the Invention

**[0009]** This purpose is fulfilled by a box of the type specified in the introduction which is peculiar in that the flap is partially or entirely shaped as a company logo or as a product in the box.

**[0010]** The sealing maintains a sealed condition of the lid on the container and may only be broken with great difficulty, thus making it impossible to get access to the interior of the box without damaging the lid and/or the box. The said lid part is connected with the rest of the lid by a perforation. In order to get access to the interior of the container, this perforation is to be broken for opening the lid. This means that the sealing is not broken, but that the said lid part is torn off from the rest of the lid, and wherein this tearing is facilitated by a perforation.

**[0011]** By providing a sealing between such a lid, which will preferably be a so-called flip lid, and the container, a sealing plastic film around the packet can be omitted, providing that a production without need of the film packing and the associated problems described above can be used in order to achieve a tamperproof box.

**[0012]** As the flap is designed entirely or partially as a company logo or as a product in the box, it will be possible to advertise a product or a producer independently of the print used on the box. This advertisement will be established irrespectively whether the box is open or closed.

**[0013]** In a preferred embodiment, the box has a bottom and sides for forming a container with an upwards open mouth covered by the lid. The lid is then pivotably fastened to a back side of container and has a sealing at an opposite front side of the container, e.g. provided as a bonding between the outer side of the front side of the container and the inner side of the lid. This sealing is to be broken, or there is to be provided access to the packet in other ways, which for the user is a clear indication to whether the packet has been opened previously.

**[0014]** Strictly speaking, the sealing does not need to be provided between the front side of the container and the lid; it is sufficient that the lid has a part abutting on at least one of the sides of the container, and that the sealing is provided between a part of the lid and the at least one side. By providing the sealing between the lid and the front side of the container, in particular the central area of the front side of the container, the most expedient transport through the production machine is ensured, as the packet is most flexible in this part, and a possible elevation due the sealing means the least possible trouble to the transport through the production machine.

**[0015]** In a much preferred embodiment, the lid has a flap which is attached to or forms a part of one of the sides of the container by means of the sealing. Advantageously, the flap is then connected with the rest of the lid by a perforation.

**[0016]** The invention is suited for improving pastille

boxes according to prior art as described in the introductory section of the description, where these pastille boxes also have a snap lock or spring lock for retaining the lid during storage after having been opened for the first time.

[0017] Even though the box is primarily intended for pastilles, for example liquorice, chewing gum or fruit gums, it is within the scope of the invention to use the box for other contents.

### Short Description of the Drawing

[0018] The invention is described in more detail with reference to the drawing, wherein:

- Fig. 1 shows a box according to the invention;
- Fig. 2 is a cut out cardboard for forming a box according to the invention;
- Fig. 3 shows an alternative embodiment of the flap; and
- Fig. 4 shows an embodiment of the flap extending across the entire width of the lid.

### Detailed Description of the Invention

[0019] Fig. 1 shows box according to the invention. The box 1 has a container 2 and a lid 3 which at its back side 4 is pivotably fastened to the container 2. The container has a rectangular bottom 5 from which two opposing side faces 6, a back side 7 and a front side 8 extend. The lid 3 has a top side 11, a front side 9 and opposing side faces 10 which in the closed condition of the lid as shown on Fig. 1 abut on the front side 8 and the side faces 6, respectively, of the box.

[0020] The design thus corresponds to the design of the boxes in the patent publications mentioned in the introduction GB 1,467,256 and WO 94/10048, and a certain analogy to these can be seen by Fig. 2 which shows a box according to the invention in a plan view of a piece of cardboard blank cut for folding into a box according to the invention.

[0021] The individual faces are indicated on Fig. 2 corresponding to Fig. 1, where there is also a number of auxiliary flaps 12, 13, 14, 15 used for assembling the box, where auxiliary flap 15 is glued to side 6, auxiliary flaps 13 to bottom 5 and auxiliary flaps 12 to the front side 9 of lid 3. Moreover, the container comprises a lock flap 16 which in the assembled condition of the box is bent outwards for engaging the two edges 17 formed when the auxiliary flaps 12 are glued to the front side 9 of the lid 3.

[0022] The particular new feature compared with prior art is a flap 18 which is fastened to the rest 19 of the lid by means of a perforation 20. In the assembled condition of the box 1, this flap 18 bears on an area 21 for glue at the front side 8 of the container 2. In order to get to the contents of the container, the flap 18 glued to the container can be torn off the rest 19 of the lid 3 by breaking the perforation 20 at the front side 9 of the lid 3. The flap 18 then remains fixed on the glue spot 21 at the front

side 8 of the container 2, while the lid 3 operates without this flap 18, which, however, is a sure indication to the user that this box 1 has been opened before.

[0023] Even though the box is shown with a flap 18 which is triangular, this flap may have other shapes, e.g. round, oval or rectangular. This freedom in shaping the flap can be utilised for forming flaps according to company logo; for example, it is known with pastilles with a round triangular shape as the flap shown on Fig. 2. The flap may therefore reproduce the logo of the company or the product with respect to the shape, but it may also generally be provided with colour printing reproducing an image of the pastille in the box and/or the logo of the company or the product.

[0024] In many cases in production it is an advantage if this flap 18 is not designed too long, because it must rather not project too far beyond the lower edge of the lid 3; the flap 18' may e.g. be flush with the lower edge of the lid as indicated on Fig. 3.

[0025] As shown on the drawing, the width of the flap constitutes about one third of the width of the lid, but it may also have other widths, e.g. between 25% and 50% of the width of the lid, wherein consideration is taken that the lid after tearing off the flap still has enough strength

to enable easy and sure opening and closing of the lid. [0026] Alternatively, the flap 18" may be provided across the entire width of the lid 3 as a narrow strip which is loosened from the lid as shown on Fig. 4.

[0027] The flap 18 shown on Fig. 2 is, however, more easily broken by the user, as a simple thrust with a nail rapidly breaks the perforation. The bridges between the flap and the lid constituting the perforation may then be provided right at the spots where the pressure from a nail is the greatest, making it easy for the user to break the perforation.

### Claims

1. A box for pastilles, including a container and a lid which is pivotably attached to the container, where the box is provided with a sealing between a part of the lid and the container for maintaining a closed condition of the lid on the container, and where the said lid part is connected to the rest of the lid via a perforation to be broken for opening the lid, and where the said lid part is a flap fastened to one of the sides of the container by means of the sealing, **characterised in that** the flap is partially or entirely shaped as a company logo or as a product in the box.
2. Box according to claim 1, **characterised in that** the box has a bottom and sides for forming a container with an upwards open mouth, and where the lid is pivotably attached to a back side of the container and has a sealing at an opposite front side of the container.

3. Box according to any preceding claim, **characterised in that** the lid has a part abutting on at least one of the sides of the container, and that the sealing is provided between the lid part and the at least one side.

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4. Box according to any preceding claim, **characterised in that** the sealing is provided as a bonding between at least one side of the container and the lid.

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5. Box according to any preceding claim, **characterised in that** the box includes a spring lock between the lid and the container.

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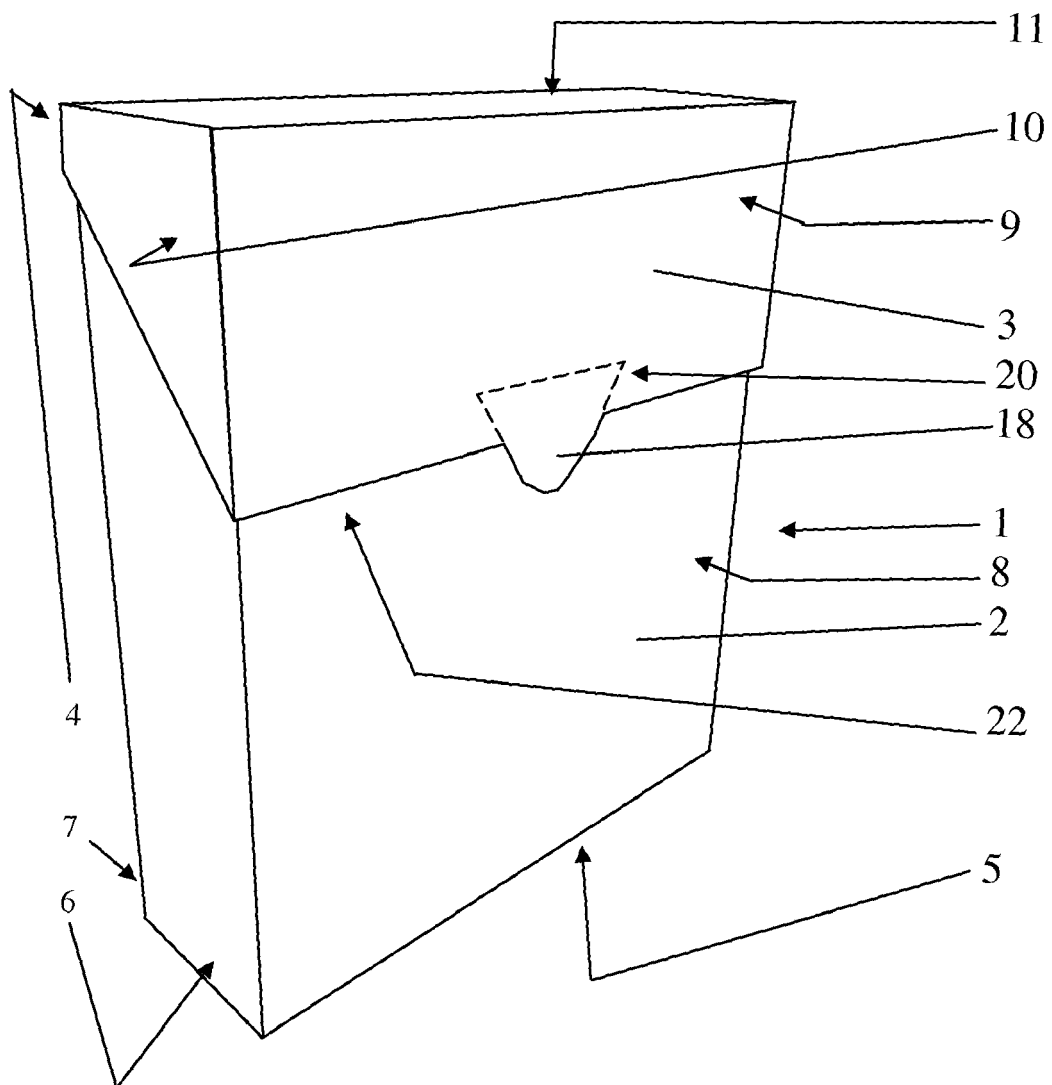
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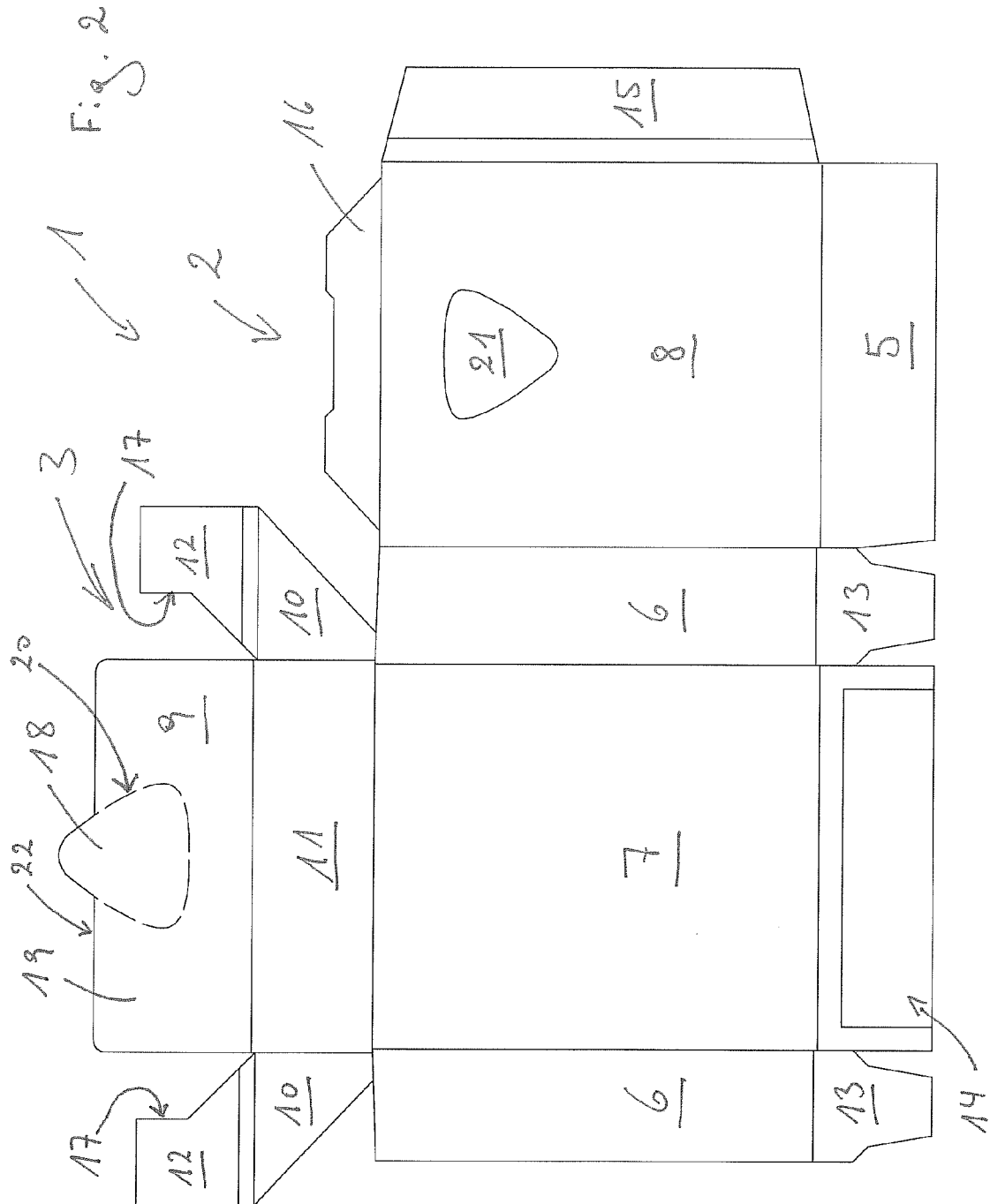
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FIG. 1





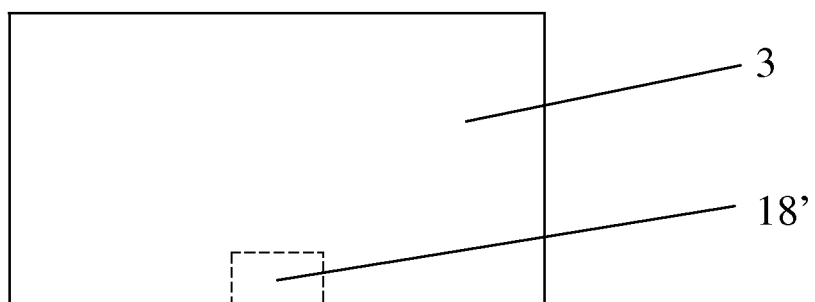


FIG. 3

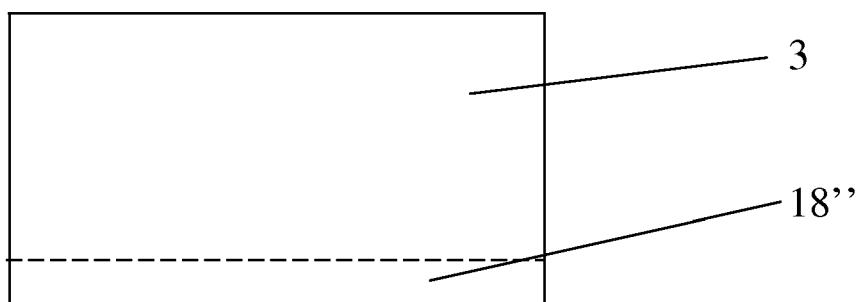


FIG. 4



European Patent  
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# EUROPEAN SEARCH REPORT

Application Number  
EP 08 10 4573

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	NL 1 023 513 C2 (ASMOPAK B V [NL]) 24 November 2004 (2004-11-24) * page 7, line 22 - page 8, line 9; figures 1,2 *	1-5	INV. B65D5/66 B65D85/10
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			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 10 September 2008	Examiner Cazacu, Corneliu
CATEGORY OF CITED DOCUMENTS		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	
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 10 4573

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10-09-2008

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

**REFERENCES CITED IN THE DESCRIPTION**

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