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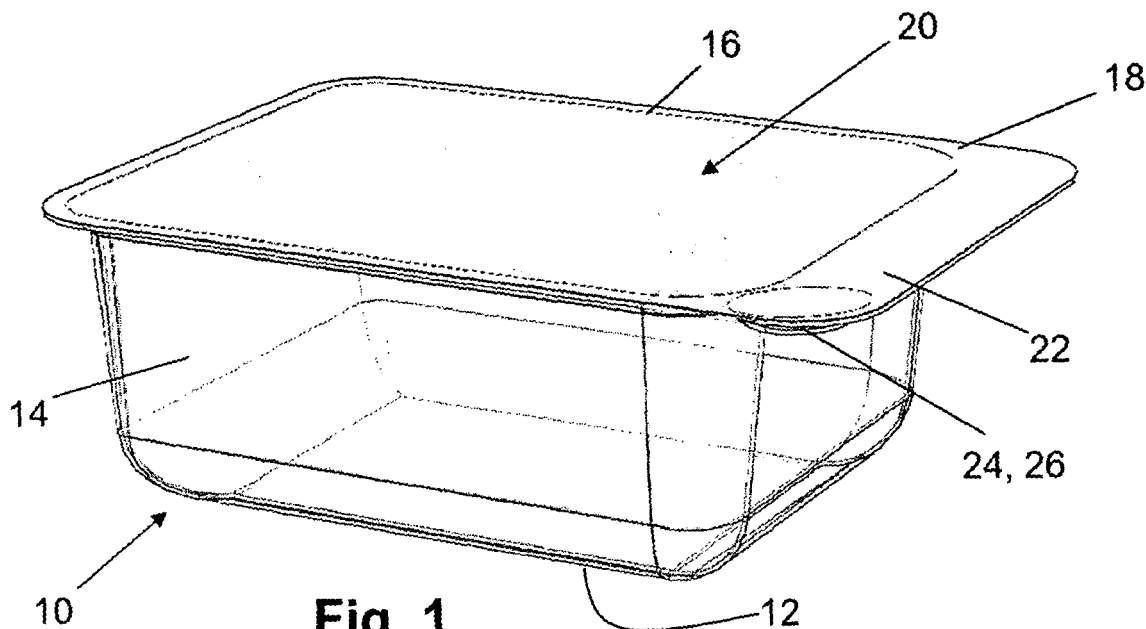
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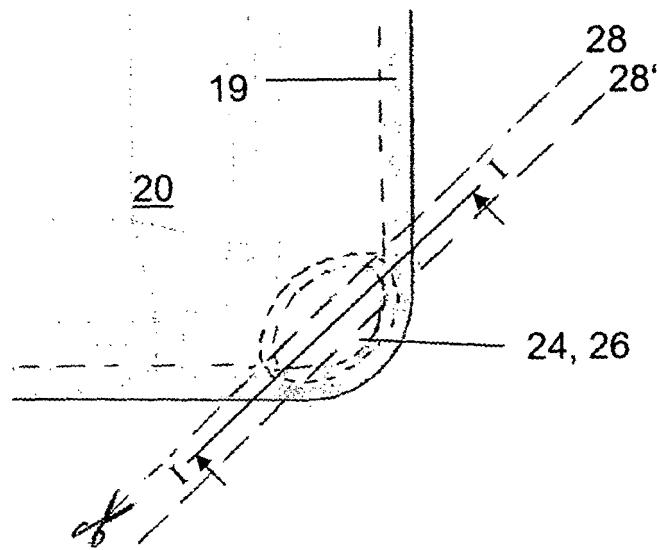
(54) **Container with peelable lid with protection against unauthorized opening**

(57) With a packaging having a container (10) and a lid (20) peelably sealed onto a flat sealing shoulder (18) of a circumferential container rim (16), an indentation (24) is formed in a portion (22) of the sealing shoulder (18) thereby creating a cavity (26) covered by the lid (20), which cavity (26), after having cut through along a given

cut line (28), is providing a grip portion (32) of the lid (20) as a tear tab for peeling the lid (20) from the sealing shoulder (18). This lid system is a valuable protection against unauthorized opening and is effective in restraining unauthorized persons to manually open the package without using a tool.



**Fig. 1**



**Fig. 2**

## Description

**[0001]** The invention relates to a packaging having a container and a lid peelably sealed onto a flat sealing shoulder of a circumferential container rim.

**[0002]** Higher priced goods, in particular small articles, are in a higher danger to be stolen. For instance, ink cartridges are usually small and relatively expensive and hence preferred targets of thefts. The normally used paper box packaging is easy to open and the content, i.e. the ink cartridge, easy to be stolen.

**[0003]** Counteractive measures lead to packagings which are not consumer-friendly and to additional expenses in the form of e.g. safety labels on the packagings.

**[0004]** As a consequence, end consumers often have to buy a packaging which cannot be opened easily at the place where the product is used, i.e. at home or in the office. Even after the stringent use of mechanical auxiliary means such as scissors or knives the packagings are difficult to open. Moreover, with the application of resistant plastic materials such as A-PET there exists a risk of injury by the opening means itself, or by means of sharp edges of the cut plastic material.

**[0005]** Containers with a lid peelably sealed onto a flat sealing shoulder of a circumferential container rim are well-known as food packaging. Typically the lid is provided with a tear tab for gripping and tearing it from the container rim.

**[0006]** It is an object of the invention is to provide a packaging having a container with a peelable lid as mentioned above with a lid system which does not allow easy opening without using a tool.

**[0007]** An other object of the invention is to provide a packaging having a container with a peelable lid as mentioned above with a protection against unauthorized opening which is effective in restraining unauthorized persons to manually open the package without using a tool.

**[0008]** A further object of the invention is to provide a packaging having a container with a peelable lid as mentioned above which does not permit the removal of the packed article at the point of sale without using an opening aid, but enables an easy opening at the point of use by peeling off the lid after the use of an opening aid such as a pair of scissors.

**[0009]** The foregoing objects are achieved according to the invention in that an indentation is formed in a portion of the sealing shoulder thereby creating a cavity covered by the lid, which cavity, after having cut through along a given cut line, is providing a grip portion of the lid as tear tab for peeling the lid from the sealing shoulder.

**[0010]** The lid is sealed onto the sealing shoulder at least along a peripheral sealing border strip.

**[0011]** Preferably the indentation is formed in an edge portion of the container.

**[0012]** The width of the peripheral sealing border strip can be reduced over a distance starting from the cut line to lower the effort needed to start peeling the lid.

**[0013]** The indentation is preferably formed during forming the container which can be thermoformed or cold formed, preferably by deep-drawing, from a sheet of a plastic monofilm or laminate, or from a plastic/metal laminate.

**[0014]** The core of the invention is a container with a peelable lid known in the art, but with a tear tab which is created only after cutting away a portion of the container rim together with the lid sealed thereon using a tool such as a pair of scissors or a big knife.

**[0015]** The materials used for the container and the lid are strong enough to withstand tearing either manually or using small tools such as a small knife. On the other hand, an edge of the container rim can easily be cut by the customer at home using a pair of scissors or a bigger knife. Basically every packaging material can be used.

**[0016]** The container can e.g. be thermoformed from a plastic film in the form of a monofilm or a laminate, or the container can be cold formed e.g. by deep-drawing from a metal/plastic laminate.

**[0017]** The lid material can e.g. be a plastic film, a metal foil, such as an aluminium foil, a laminate of a plastic film and a metal foil, a plastic/paper laminate or any other material combination exhibiting the required

**[0018]** The present invention comprises all shapes of containers that can be produced with the usual thermoforming and deep-drawing methods.

**[0019]** The main application of the packaging according to the present invention is the packaging of higher priced, relatively small non-food products such as e.g. ink cartridges, batteries, spark plugs, air refreshers, tooth-brushes, etc.

**[0020]** Further advantages, features and details of the invention are revealed in the following description of preferred exemplified embodiments and with the aid of the drawing which shows schematically in

Fig. 1 a perspective view of a container closed by a lid;

Fig. 2 a view from above on the part of the container shown in Fig. 1 offering an opening portion;

Fig. 3 a view from above on the part of the container shown in Fig. 1 offering an alternative opening portion;

Fig. 4 an enlarged view of a cross-section of the opening portion shown in Figs. 2 and 3 cut along line I-I in Fig. 2;

Fig. 5 a perspective view of the container shown in Fig. 1 with cut away part of the opening portion;

Fig. 6 the container shown in Fig. 5 with the lid partially peeled off.

**[0021]** A container 10 shown in Fig. 1 for receiving non-food articles such as ink cartridges, spark plugs or other

goods which are to be protected from easily being stolen has a bottom 12 and a sidewall 14 extending from the bottom 12 and defining a cavity for the article to be packed. From bottom 12 the sidewall 14 extends upwards to a circumferential container rim 16 featuring a flat sealing shoulder 18. A lid 20 closing the container 10 is peelably sealed onto a peripheral sealing border strip 19 of said sealing shoulder 18 by means of a sealing layer 21 in a well-known manner, the sealing border strip 19 having a width b in the order of e.g. 5 to 10 mm to allow for peeling off the lid 20 without excessive effort.

**[0022]** A portion 22 of the sealing shoulder 18 is broadened so as to receive an indentation 24 forming a closed cavity 26 covered by lid 20 after the lid 20 has been sealed onto sealing shoulder 18.

**[0023]** To open the container 10 by peeling the lid 20 from the sealing shoulder 18, a portion of the sealing shoulder 18 with the indentation 24 covered with the lid 20 is cut away by means of a pair of scissors along a given line 28 or within a range between two given parallel lines 28, 28' as shown in Figs. 2 and 3. After having cut through the aforementioned portion of the sealing shoulder 18, the previously closed cavity 26 is now open, thereby providing a gap 30 between a grip portion 32 of lid 20 and indentation 24 (Fig. 4, 5).

**[0024]** Gap 30 allows a fingertip to enter the space between lid 20 and indentation 24, clamp the grip portion 32 of lid 20 like a tear tab between said fingertip and the thumb and peel off lid 20 from sealing shoulder 18 thereby opening container 10 (Fig. 6).

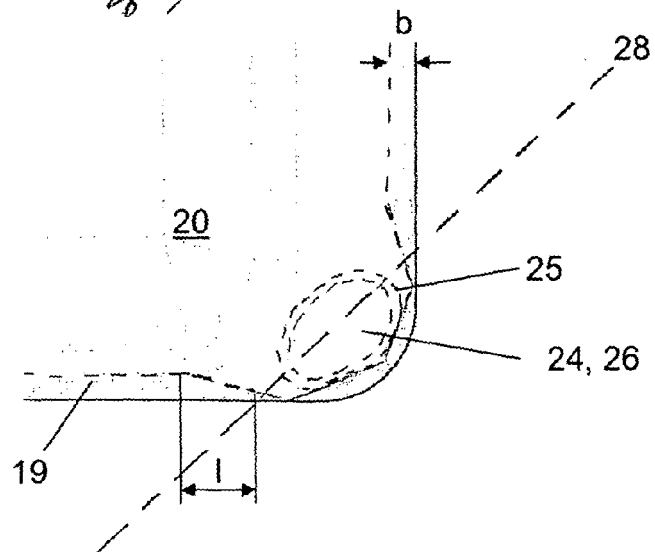
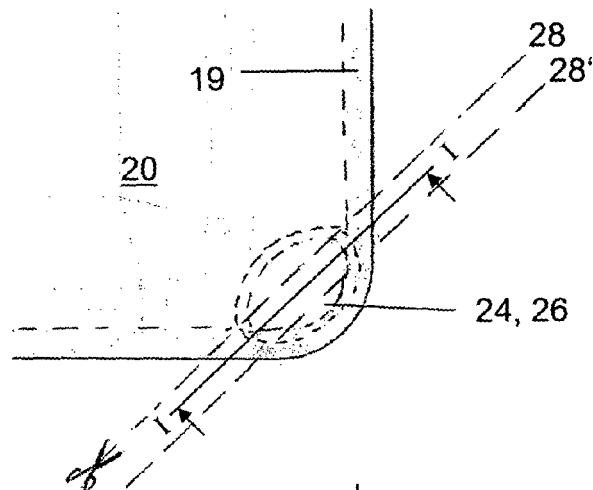
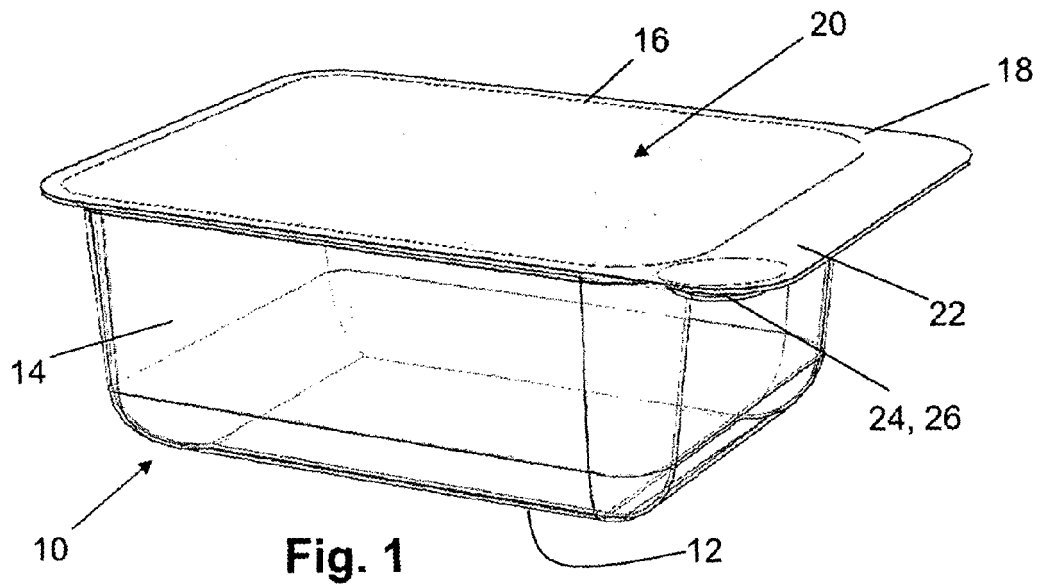
**[0025]** As shown in Fig. 3, to facilitate peeling off the lid 20 after having cut away a portion of the sealing shoulder 18, the effort needed to start peeling may be lowered by reducing the width b of the sealing border strip 19 over a distance l of e.g. 10 to 20 mm starting from the cut line 28. In addition, the width b of the sealing border strip 19 may be reduced to be kept outside the rim 25 of indentation 24.

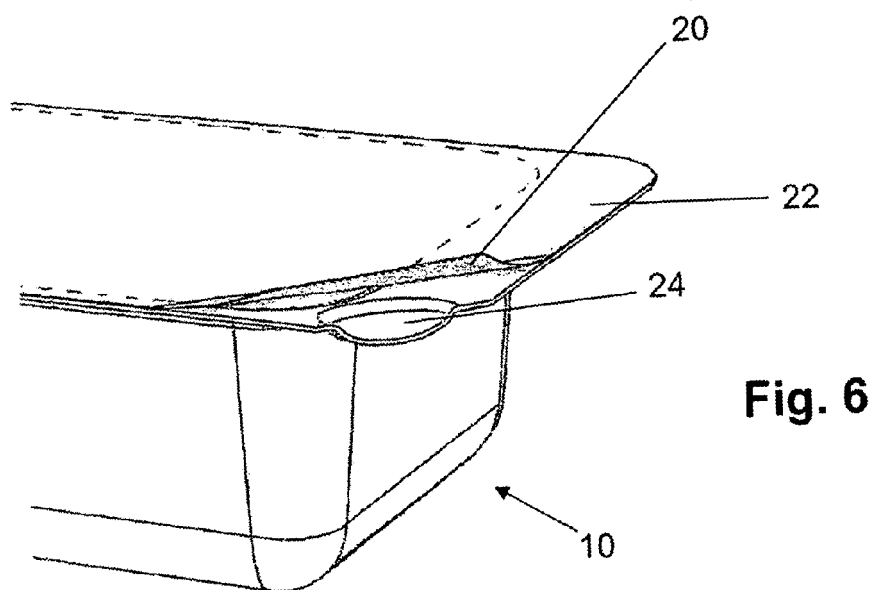
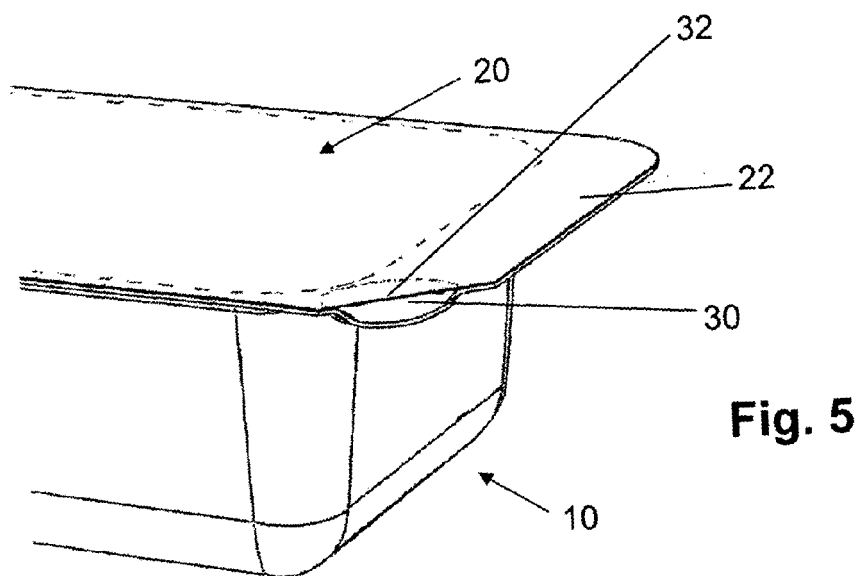
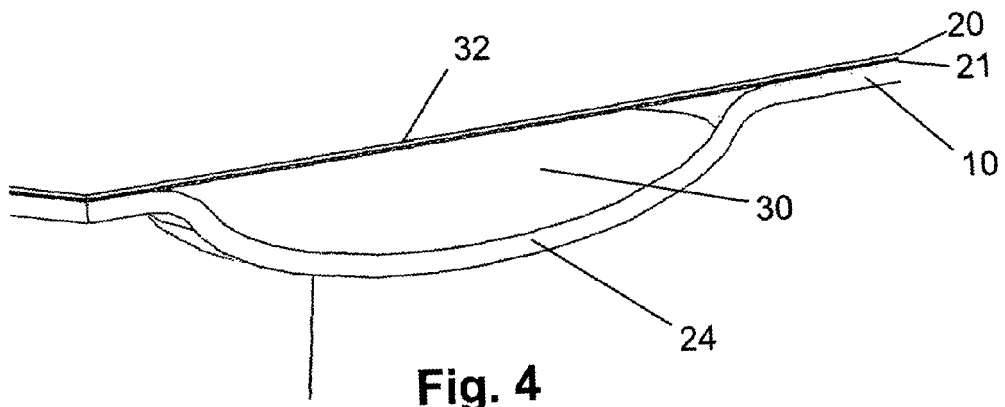
indentation (24) is formed in an edge portion of the container (10).

4. Packaging according to claim 2, wherein the width (b) of the peripheral sealing border strip (19) is reduced over a distance (l) starting from the cut line (28) to lower the effort needed to start peeling the lid (20).
5. Packaging according to one of claims 1 to 4, wherein the indentation (24) is formed during forming the container (10).
6. Packaging according to one of claims 1 to 5, wherein the container (10) is thermoformed or cold formed, preferably by deep-drawing, from a sheet of a plastic monofilm or laminate, or from a plastic/metal laminate.
7. Use of the packaging according to any of the foregoing claims for thief-proof packing non-food products.

## Claims

1. Packaging having a container (10) and a lid (20) peelably sealed onto a flat sealing shoulder (18) of a circumferential container rim (16),  
**characterized in that**  
an indentation (24) is formed in a portion (22) of the sealing shoulder (18) thereby creating a cavity (26) covered by the lid (20), which cavity (26), after having cut through along a given cut line (28), is providing a grip portion (32) of the lid (20) as a tear tab for peeling the lid (20) from the sealing shoulder (18).
2. Packaging according to claim 1, wherein the lid (20) is sealed onto the sealing shoulder (18) at least along a peripheral sealing border strip (19).
3. Packaging according to claim 1 or 2, wherein the







## EUROPEAN SEARCH REPORT

Application Number  
EP 08 40 5207

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                    |                                                     |                                         |
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| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Citation of document with indication, where appropriate, of relevant passages                                                                                                      | Relevant to claim                                   | CLASSIFICATION OF THE APPLICATION (IPC) |
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| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                    |                                                     |                                         |
| Place of search<br>The Hague                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                    | Date of completion of the search<br>23 January 2009 | Examiner<br>Dederichs, August           |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>&amp; : member of the same patent family, corresponding document</p> |                                                                                                                                                                                    |                                                     |                                         |

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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