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(54) **Package for baked products and use thereof**

(57) A package for baked products, comprising a series of compartments (4), which are each suitable for accommodating at least one baked product (2), the compartments (4) being closed by a closing element (10), which is provided with first breaking means (12), which are designed such that they break upon the closing element (10) being pulled loose in a first direction,

so that the closing element can be removed in parts, to clear one or a few compartments, and which do not break upon the closing element (10) being pulled loose in a second direction, so that the closing element can be removed in one piece, to clear all compartments.

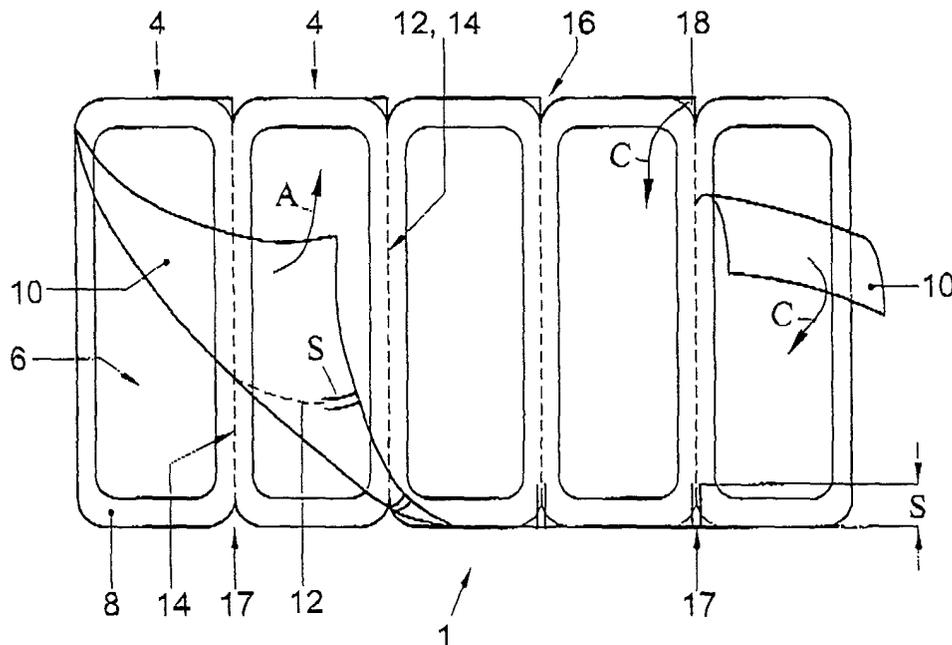


Fig. 2

## Description

**[0001]** The invention relates to a package for baked products, such as cookies, crackers, toast, savory snacks or the like.

**[0002]** Usually, such baked products, whether or not supported by a tray, are packaged in a closed, moisture-tight envelope of, for instance, a plastic film, for instance manufactured from polypropylene, cellophane or coated paper. This envelope keeps the baked products fresh and crunchy, while the tray keeps the baked products together, protects them and facilitates their being taken out and presented. However, once the package has been opened, residual baked products in the package can no longer be kept fresh. For that purpose, additional preserving means are needed, such as for instance a can (for cookies) or closable bag.

**[0003]** Further, subpackages are known, in which the baked products have been packaged per piece or in small portions and subsequently packaged in a collective outer package. In this way, the above-mentioned disadvantage has been solved, because every time exactly the number of subpackages suiting one's need can be opened. The other subpackages can remain closed, so that baked products included in them remain fresh. An additional advantage is that the subpackages are handy take-along packages to be carried along. However, a disadvantage of this type of package is that it requires relatively much packaging material and consequently results in much packaging waste. Further, the package is less suitable as a presentation package.

**[0004]** Alternatively, reclosable packages are known, such as cans which, after opening, can be simply closed, so that the residual content remains fresh. The presentation function of such packages is normally good, but the packages are often relatively costly and hence suitable only for luxury baked products.

**[0005]** The object of the invention is to provide a package for baked products, whereby the disadvantages of the known packages are at least partly avoided, while maintaining the advantages thereof. In particular, the object of the invention is to provide a package in which the baked products, also after the package has been opened up, can be stored while preserving freshness.

**[0006]** Furthermore, the object of the invention is to provide a package which, as desired, can be simply transformed into a presentation package and/or into a series of take-along packages.

**[0007]** These and further objects are presently at least partly achieved with a package according to the invention, characterized by the features according to claim 1.

**[0008]** In a package according to the invention, a series of compartments are provided, suitable for accommodating relatively small portions of baked products. The compartments are closed by a closing element provided with first breaking means. With these, as desired, the entire closing element or parts thereof can be removed, resulting in a wholly or partly opened package.

As a result, every time, a desired amount of baked products can be released.

**[0009]** In a first embodiment, the compartments can be mutually connected by the closing element, so that they are automatically separated from each other upon opening of the package, that is, upon removal of the closing element.

**[0010]** In a second embodiment, the compartments are mutually connected along at least one of their sides. This provides the advantage that the compartments upon removal of the closing element remain coupled to each other and thus form a presentation package, of which, as desired, one or more compartments can be opened.

**[0011]** In a further advantageous elaboration of this second embodiment, the compartments are mutually detachably connected via second breaking means, according to the features of claim 3. Accordingly, the compartments can be separated in opened or closed condition from the residual series. In the latter case, a closed subpackage is obtained, which can function as take-along package.

**[0012]** Thus, through a smart positioning of first and second breaking means, a package can be obtained which can be opened in different ways (wholly or partly) and can be used (as presentation or take-along package) without this requiring additional packaging material. On the contrary, compared with the known packages, material can be saved, in that no separate tray with envelope is needed, nor a separate subpackage and collective package.

**[0013]** In a particularly advantageous embodiment, the first and second breaking means are preferably designed according to the features of claim 4, that is, such that upon breaking of the second breaking means between the compartments, the first breaking means in the closing element break as well. As a result, the package can be split up with minimum operations into a series of closed subpackages/take-along packages. Conversely, the second breaking means remain preferably intact upon breaking of the first breaking means, so that removal of the closing element or parts thereof is possible without thereby separating the compartments from each other.

**[0014]** The first breaking means in the closing element can for instance be designed as perforated lines or like weakened lines which have a first end continuing as far as a first edge of the package and have a second end terminating some distance from a second edge of the package. The end continuing as far as the first edge will readily break when the closing element is pulled open at this first edge in a direction parallel to the weakened line, whereas the unweakened part between the second end and the second edge, by contrast, prevents breaking when the closing element is pulled open at the second edge in a direction parallel to the respective weakened line. By accordingly varying the orientation of the weakened lines and the provision of their continuing

as far as the edge or not, relative to an intended pull-open direction, it can be accurately influenced which parts of the closing element will and which parts will not break.

**[0015]** In the further subclaims, further advantageous embodiments are described of a package according to the invention as well as the use thereof. For clarification, embodiments of a package according to the invention as well as the use thereof will be elucidated with reference to the drawing, wherein:

Fig. 1 shows in perspective top plan view a package according to the invention, partly inserted into an outer package;

Fig. 2 shows in top plan view the package according to Fig. 1;

Fig. 3 shows in top plan view an alternative embodiment of a package according to the invention; and Fig. 4 shows in top plan view a further alternative embodiment of a package according to the invention.

**[0016]** In this description, the same or corresponding parts have the same or corresponding reference numerals. The embodiments are shown only by way of example. Combinations of (parts of) exemplary embodiments shown are expressly understood to fall within the inventive concept. The term 'baked product' in this description should be understood to include at least cookies, toast, savory snacks and the like, typically crunchy food products which can lose their freshness, at least crunchiness, once a package has been opened.

**[0017]** Fig. 1 shows in perspective view a package 1 according to the invention intended for packaging, for instance, cookies, toast, savory snacks, and like baked products 2. The package 1 comprises a tray 3, provided with a series of compartments 4, each suitable for accommodating one or more baked products 2. The compartments 4 are arranged next to each other in one row and mutually connected via an upper edge 8, which edge extends all around an open upper side 6 of the compartments 4. The open upper sides 6 are covered by one all-covering film-shaped closing element 10, which has been secured onto said upper edges 8, around the open upper sides 6.

**[0018]** The tray 3 can for instance be set up from a cardboard blank or be pressed from a paper blend. In both cases, the inside is preferably provided with a barrier coating, which makes the tray 3 moisture-tight and/or grease-resistant. This coating can be provided before or after the tray 3 has been formed. Alternatively, the tray 3 may be manufactured from plastic, for instance by (injection) molding or thermoforming. Manufacturing the trays 3 can be done online in the packaging line, but the trays 3 can also be supplied in preformed condition. The film-shaped closing element 10 can also be manufactured from paper, preferably paper coated with a barrier layer, or plastic, and be fixed onto the upper edge 8

through for instance gluing or sealing.

**[0019]** In the exemplary embodiment shown in Fig. 1, the package 1 is included in a substantially rectangular outer package 7, which can be manufactured, for instance, from cardboard. Such an outer package 7 can help to enhance the stiffness, strength and stackability of the package and thus help to protect the baked products 2 against damages. In addition, on the outer package 7, product information may be printed, such as, for instance, a picture of the baked products 2, production data, a brand, a *best before* date, possible further instructions for use, etc. If desired, in a single outer package 7, several layers of packages 1 can be accommodated. Incidentally, the outer package 7 can also be omitted in order to save packaging material and packaging waste. In that case, the tray 3 and/or the closing element 10 can be provided with the desired print.

**[0020]** The package 1 further comprises first and second breaking means 12, 14 by means of which the package 1, in different ways to be further discussed hereinafter, can be opened and/or split up into subpackages each provided with at least one compartment 4.

**[0021]** The first breaking means 12 extend in the closing element 10 and, in the exemplary embodiments shown, are designed as perforated lines. However, other weakening techniques are possible and are understood to fall within the framework of the invention. The perforated lines 12 extend between the compartments 4, from a first longitudinal edge 16 of the package 1 (see also Fig. 2), as far as some distance S from an opposite, second longitudinal edge 17. The distance S is indicated in the figures with a double line.

**[0022]** The second breaking means 14 are likewise designed as perforated lines but, like the first breaking means 12, can also be realized by other weakening techniques. The perforated lines 14 extend in the upper edges 8 between adjacent compartments 4 and substantially coincide in position with the first breaking means 12. However, the second breaking means 14 preferably do continue as far as the second longitudinal edge 17 (see Fig. 2).

**[0023]** The package 1 according to Figs. 1 and 2 can be used as follows. Firstly, the compartments 4 of the package 1 can be separately opened. To that end, the closing element 10 is engaged at a corner point 18 of one of the compartments 4, bounding the first longitudinal edge 16, and pulled up in the direction of arrow C. In order to facilitate engagement, this corner point preferably projects somewhat with respect to the upper edge 8, as shown in Fig. 2. It will be clear that also the adjacent corner point or both corner points can project. It is also possible to have the closing element 10 project throughout the length of the first longitudinal edge 16, for forming an engagement strip. Now, when the closing element 10 is pulled open in the direction of arrows C, the first breaking means 12 will thereby break, so that the engaged part is separated and pulled loose from the residual closing element 10. Thus, all compartments 4

can be opened one by one.

**[0024]** Secondly, the package 1 can be opened in its entirety. To that end, the closing element 10 is gripped at one of the corner points bounding the second longitudinal edge 17 (illustrated in Fig. 2 for the left-hand bottom corner point, but this could also be the right-hand bottom corner point). The closing element 10 is subsequently pulled up in the direction of arrow A. In doing so, the unweakened parts S prevent the first breaking means 12 from being broken, so that the closing element 10 can be removed in one piece.

**[0025]** Thirdly, the package 1 can be split up into subpackages, by breaking the second breaking means 14 between successive compartments 4.

**[0026]** Fig. 3 shows an alternative embodiment of a package 1' according to the invention, in which the compartments 4 are set up in two juxtaposed rows, and in which, between the compartments, first and second breaking means 12A, 14A extend, corresponding to the breaking means as shown in Figs. 1 and 2, and in which moreover first and second breaking means 12B, 14B extend in longitudinal direction between the two rows. The first breaking means 12A,B, as in the embodiment shown in Figs. 1 and 2, extend from a first longitudinal edge 16A,B as far as some distance S1,S2 from an opposite second longitudinal edge 17A,B. The breaking means 12A,B; 14 A,B can for instance be designed again as perforated lines or like weakened lines.

**[0027]** With these breaking means 12A,B; 14 A,B, the package 1' can in a comparable manner be opened and/or split up into subpackages, as described with reference to Figs. 1 and 2. Thus, the whole closing element 10 can be removed in one go by pulling this element 10 open from the left-hand bottom corner in the direction of arrow A. In the process, the unweakened parts S1 and S2 prevent breaking of the breaking means 12A,B. Furthermore, by pulling the closing element 10 loose in the direction of arrow B, one row of compartments 4 can be released in one go. In the process, by virtue of the unweakened parts S1, a longitudinal half of the closing element 10 will tear loose along first weakened line 12B. Finally, by pulling the closing element loose in the direction of arrows C, in each case a part of a size of a compartment 4 can be removed from the closing element 10, to clear the respective compartment 4. Furthermore, the package 1' can be split up into subpackages, by breaking the second breaking means 14A,B.

**[0028]** Fig. 4 shows a further alternative embodiment, in which the compartments, in top plan view, jointly form a ring-shaped package 1", with each compartment 4 covering a segment of this ring. The first and second breaking means 12, 14 extend from an inner circumferential edge 16 in radial direction as far as a distance S from the outer circumferential edge 17. The package can again be opened in a similar manner to that described above, that is, by pulling the closing element 10 loose in the direction of arrow A, the closing element 10 can be removed in one piece, with the unperforated edge

S preventing breaking of the first breaking means 12. If, by contrast, the closing element 10 is pulled open in the direction of arrows C, the first breaking means 12 will break and each compartment 4 can be opened separately. Breaking of the second breaking means 14, which extend under the first breaking means, can be done in a manner known per se, whereby circular segment-shaped subpackages are obtained.

**[0029]** The invention is not in any way limited to the exemplary embodiments shown in the description and the drawing. Many variations thereon are possible within the framework of the invention outlined by the claims,

**[0030]** Thus, the compartments can have any shape, which may be tailored, for instance, to the contours of the baked product to be packaged. Moreover, these compartments can be mutually coupled in many ways, to form a variety of packaging configurations. The breaking means may be realized in a different manner, depending on the material from which the compartments and the closing element are manufactured. Thus, these means, when the compartments are injection-molded, can comprise relatively thin, breakable bridges, and these means, when the package is manufactured from cardboard, can comprise a cutting line cut halfway from two sides.

**[0031]** These and many variations are understood to fall within the framework of the invention as set forth in the following claims.

## Claims

1. A package for baked products, comprising a series of compartments (4), which are each suitable for accommodating at least one baked product (2), the compartments (4) being closed by a closing element (10), which is provided with first breaking means (12), which are designed such that they break upon the closing element (10) being pulled loose in a first direction, so that the closing element can be removed in parts, to clear one or a few compartments, and do not break upon the closing element (10) being pulled loose in a second direction, so that the closing element can be removed in one piece, to clear all compartments.
2. A package according to claim 1, wherein the compartments (4) are set up in at least one row and are mutually connected on at least one side.
3. A package according to claim 1 or 2, wherein the compartments (4) are mutually detachably connected by means of second breaking means (14).
4. A package according to claim 3, wherein the first and second breaking means (12, 14) are coupled, such that breaking of the first breaking means (12) is possible without breaking the second breaking

means (14), but breaking of the second breaking means (14) leads to breaking of the first breaking means (12).

5. A package according to claim 3 or 4, wherein the compartments (4) are mutually detachable in closed condition. 5
  
6. A package according to any one of the preceding claims, wherein the closing element (10) is manufactured from sheetlike material. 10
  
7. A package according to any one of the preceding claims, wherein the first breaking means (12) comprise weakened lines, in particular perforated lines, extending in the closing element (10). 15
  
8. A package according to any one of claims 3-7, wherein the second breaking means (14) comprise weakened lines, whose position coincides substantially with that of the first breaking means (12). 20
  
9. A package according to claim 7 or 8, wherein the weakened lines have a first end continuing as far as a first edge (16) of the package (1) and have a second end terminating at some distance (S) from a second edge (17) of the package. 25
  
10. A package according to any one of claims 2-7, wherein the compartments (4) are set up in at least one row and the first and second breaking means (12, 14) extend substantially at right angles to the longitudinal direction of that row, between the compartments (4). 30
  
11. A package according to claim 10, wherein the closing element (10) is fixed around an open side (6) of the compartments (4), onto walls (8) surrounding these compartments (4). 35
  
12. A package according to any one of the preceding claims, wherein the compartments (4) are manufactured from plastic, in particular injection molded. 40
  
13. A package according to any one of the preceding claims, wherein the package is included in an outer package (7), which is preferably manufactured from cardboard. 45
  
14. Use of a package for baked products (2) according to any one of the preceding claims, wherein the baked products are accommodated in individual consumer portions in a series of compartments (4), which compartments (4) are mutually connected and closed, such that these compartments can, separately or all together, be opened and/or separated from each in closed or opened condition. 50  
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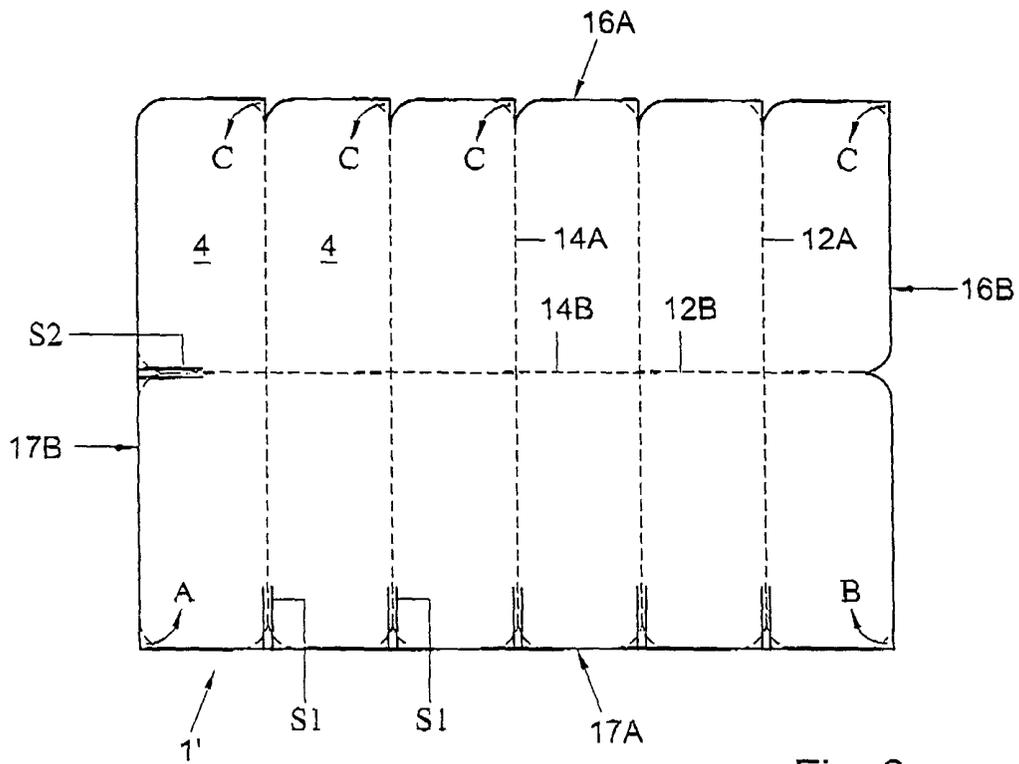


Fig. 3

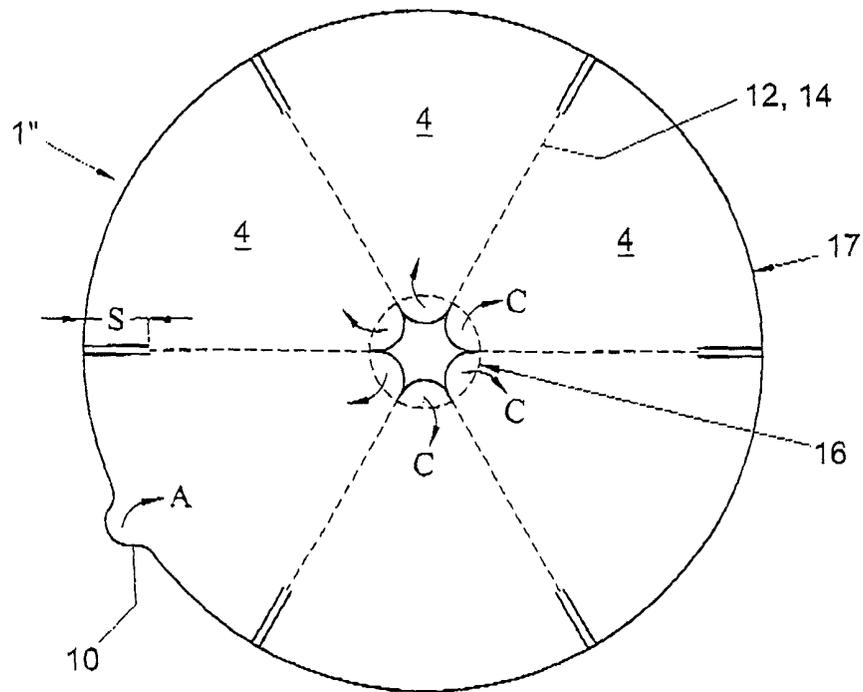


Fig. 4



European Patent  
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EUROPEAN SEARCH REPORT

Application Number  
EP 04 07 6577

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X,P	WO 03/053792 A (RASHKOVAN ALEX ;WOLF GEOFFREY (ZA)) 3 July 2003 (2003-07-03) * page 5, last paragraph - page 7, paragraph 1; figures 1-5 *	1,3-8, 12,14	B65D1/30 B65D77/20
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			B65D
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		10 September 2004	Bridault, A
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10-09-2004

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