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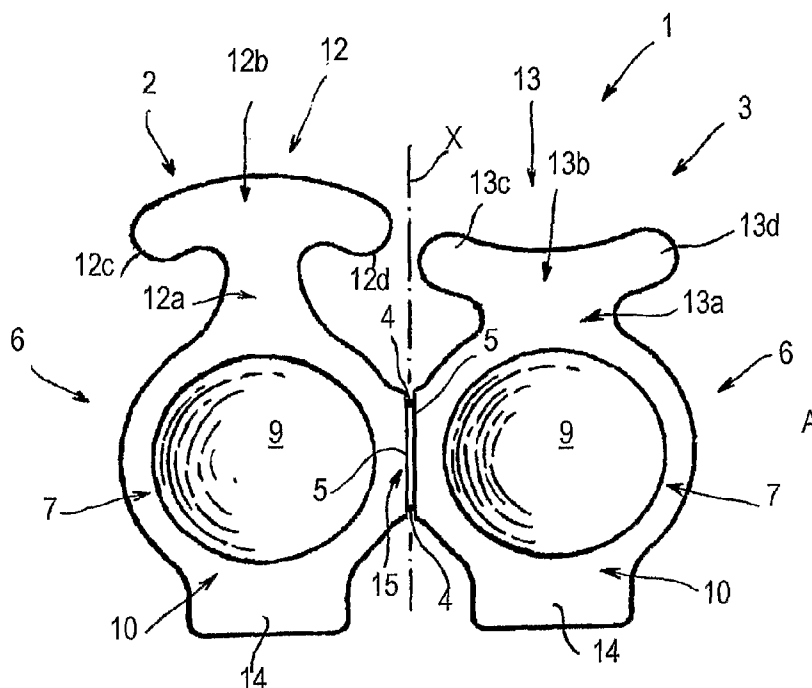
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[Continued on next page]

(54) Title: CONTAINER



(57) Abstract: A container (1) comprises first containing means (2) and second containing means (3) associated mutually through intended folding means (4) and comprising mutual hooking means (12; 13), said mutual hooking means (12; 13) being such as to keep said first containing means (2) and said second containing means (3) adjacent to one another.

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Container

The invention concerns a container for a pasty product, for example a food product such as a cream, an ice-cream or cheese, or a flowable product.

5 Containers are known, shaped in the form of a tub, comprising a first rigid and concave wall, such as to define a cavity suitable for containing a predefined quantity of product, and a second flat wall made of a material in film. The second wall is welded in a peelable manner to the first
10 wall, so as to allow a user to open the tub by grasping and pulling a tab of which the second wall is provided with. The above-mentioned containers are used, for example, as single-dose containers for semi-solid food products such as cheeses or creams.

15 A drawback of the above-mentioned tub containers lies in the fact that the latter, being provided with a single cavity, cannot be used as packaging units for products comprising two different components, which components can be mixed in use, but must be kept separate before use.

20 Containers are also known, shaped in the form of a double tub, comprising a first rigid wall in which a pair of adjacent concave portions are made, defining corresponding cavities. A second flat wall, made of a material in film, is welded in a peelable manner to the first wall. In the two
25 tubs of the container it is possible to place prefixed quantities of two distinct components of a same product, which components are to be mixed in use. A user can remove the second peelable wall, thus opening the two tubs, and rotate the first tub (along a provided intended folding
30 line) in relation to the second tub, so as to tip the contents of the first tub into the contents of the second tub. In this way, it is possible to obtain packaging units suitable for containing products comprising two components to be mixed, such as yogurt and cereals.

35 A drawback of the above-mentioned double tub containers lies in the fact that the latter are substantially larger and

bulky in comparison with the containers having a single tub. In fact, it is possible to rotate the two tubs in relation to one another only once the second wall has been removed, i.e. only at the time of use. Consequently, when the double
5 tub containers are transported and/or stored, the dimensions or shape of the double tub containers cannot be reduced or modified by rotating the two tubs in relation to one another.

An object of the invention is to improve the containers for
10 pasty or flowable products.

Another object is to improve the containers for pasty or flowable food products.

A further object is to provide a container for pasty or flowable products which can be used efficiently as a packing
15 unit both for products with a single component and for products with two components.

Another further object is to provide a container for products with two components the shape and dimensions of which can be modified easily and rapidly, so as to
20 facilitate transportation and/or storage thereof.

According to the invention, a container is provided, comprising first containing means and second containing means, mutually associated near intended folding means and comprising mutual hooking means, said mutual hooking means
25 being such as to keep said first containing means and said second containing means adjacent to one another.

Owing to the invention, a container is provided, which can be used as a packaging unit both for products with two components and for products consisting of a single
30 component, and which can be made significantly less bulky during transportation and/or storage by modifying the shape and dimensions thereof in a substantially easy and rapid manner.

In fact, owing to the intended folding means, it is possible
35 to fold the container by rotating the first containing means, defining a first tub, towards the second containing

means, defining a second tub, until a flat wall of the first containing means and a corresponding flat wall of the second containing means are juxtaposed to one another. This makes it possible to significantly reduce the dimensions and the space requirement of the container when preferably required, i.e. during transportation and/or storage. Moreover, the hooking means, comprising first hooking means and second hooking means which can be engaged with one another, make it possible to easily keep the container folded before use.

During use, after disengaging the first hooking means from the second hooking means, a user can rotate the first containing means with respect to second containing means so as to move the flat wall of the first containing means away from the flat wall of the second containing means. The user can then remove the flat wall from the first containing means and/or from the second containing means, so as to open the latter and use the product contained therein.

The invention will be better understood and carried into effect with reference to the attached drawings, in which an embodiment of the invention is shown by way of non-limiting example, in which:

Figure 1 is a front view showing a container comprising a pair of containing elements associated with one another and provided with hooking elements;

Figure 2 is a view like that of Figure 1, showing the pair of containing elements in a further configuration;

Figure 3 is rear view of one of the two containing elements of Figure 1, shown after being partially opened;

Figure 4 is a profile view, showing the pair of containing elements of Figure 2;

Figure 5 is a view like that of Figure 4, showing the pair of containing elements in a further configuration.

Figures 1 to 3 show a container 1 suitable for containing a product 30, for example a pasty food product, and comprising a first containing element 2 and a second containing element

3, which are associated with one another by means of two bridge elements 4.

Both the first containing element 2 and the second containing element 3 comprise a first wall 7 made of a thermoformable material, and a second peelable wall 8. The latter is made of a material in film, of known type and comprising aluminium, and is associated with the first wall 7 by means of a peelable type of welding.

In an embodiment that is not shown, the first wall 7 and/or the second wall 8 are made at least partially of a transparent material, so as to enable the product contained in the first containing element 2 and in the second containing element 3 to be visualized.

The first wall 7 comprises a containing portion 9, which is substantially hemisphere-shaped and is associated with a surrounding flat portion 10. The second wall 8 is flat and has an outline coinciding with a peripheral edge 6 of the first wall 7. The containing portion 9 projects from the flat portion 10 in a substantially central position and defines a cavity 11 (Figure 3), which faces the second wall 8 and is arranged for containing the product. During use, the cavity 11 is closed by the second wall 8.

In an embodiment that is not shown, the containing portion 9 has a regular, or irregular, polyhedral shape.

The peripheral edge 6 is approximately circular, except where the peripheral edge 6 defines a rectilinear portion 5, a tab 14, a first hooking element 12 (in the first containing element 2) and a second hooking element 13 (in second containing element 3).

The rectilinear portions 5 are present in the peripheral edge 6 both of the first containing element 2 and the second containing element 3, are arranged so as to be reciprocally adjacent and parallel and are interconnected by the above-mentioned bridge elements 4. The latter consist of small portions made of the same material forming the first wall 7 and are sufficiently flexible to act as hinges, thereby

making it possible for a user to rotate the first containing element 2 in relation to the second containing element 3, or vice versa, around a longitudinal axis X passing through an intended folding line 15. The latter is defined on the whole by the adjacent rectilinear portions 5 of the peripheral edge 6 of the first containing element 2 and the second containing element 3.

In an embodiment that is not shown, more than two bridge elements 4 are provided.

10 In another embodiment that is not shown, a single bridge element 4 is provided.

From an end of the flat portion 10, a tab 14 is obtained, which is substantially quadrilateral-shaped and has the same shape in the first containing element 2 and in the second containing element 3. The tab portion 14 can be grasped by the user and thus acts as a grip for the container 1.

15 A first hooking element 12 (in the first containing element 2) and a second hooking element 13 (in the second containing element 3) are obtained in an end of the flat portion 10 opposite the tab 14.

20 The first hooking element 12 comprises a connecting portion 12a, which is approximately trapezium-shaped, and a hooking portion 12b, which is arc-shaped and has a convexity facing the opposite direction with respect to the containing portion 9. The hooking portion 12b comprises a pair of end portions 12c, 12d, opposite to one another and substantially convex.

The second hooking element 13 comprises a further connecting portion 13a, which is approximately quadrilateral-shaped, and a further hooking portion 13b, which is arc-shaped and has a convexity facing the containing portion 9. The further hooking portion 13b comprises a pair of further end portions 13c, 13d, opposite each other and substantially convex.

30 During use, owing to the bridge elements 4, the first hooking element 12 and the second hooking element 13, it is possible to modify the shape and dimensions of the container

1 disclosed above, so as to make the container less bulky.
In fact, as shown in Figures 4 and 5, it is possible to
rotate the second containing element 3 towards the first
containing element 2 in a direction indicated by the arrow
5 F1, or rotate the first containing element 2 towards the
second containing element 3 in a further direction indicated
by the arrow F2, which is parallel and opposite to the
direction F1. In both the above-mentioned cases, the bridge
elements 4 act as hinges, and the rotation is performed
10 around the longitudinal axis X (shown in Figure 1). It is
thus possible to bring the first containing element 2 and
the second containing element 3 close to one another until
the second wall 8 of the first containing element 2 and the
second wall 8 of the second containing element 3 are
15 juxtaposed to one another (Figure 5). Consequently, the
container 1 passes from an open configuration A (Figure 1)
to a closed configuration B (Figure 5; Figure 2). In this
way, the overall dimensions of the container 1 are
significantly reduced, which is particularly advantageous
20 during transportation and/or storage.

Since the length of the further connecting portion 13a is
significantly less than the length of the connecting portion
12a, when the container 1 is in the closed configuration B
the pair of end portions 12c, 12d of the first hooking
25 element 12 and the pair of further end portions 13c, 13d of
the second hooking element 13 overlap one another only
partly. It is therefore possible to bend the further hooking
portion 13b, which is substantially flexible, in such a way
that the pair of further end portions 13c, 13d goes beyond
30 the pair of end portions 12c, 12d and remains blocked
between the latter and the connecting portion 12a (Figure
2). In this way, the first hooking element 12 engages the
second hooking element 13 in such as to keep the second wall
8 of the first containing element 2 and the second wall 8 of
35 the second containing element 3 juxtaposed with one another.

The container 1 can thus be maintained in the closed configuration B until, to take and use the product 30, a user bends the further hooking portion 13b (or the hooking portion 12b) in such a way as to free the pair of further end portions 13c, 13d and disengage the second hooking element 3 from the first hooking element 2. The user can thus move the first containing element 2 away from the second containing element 3 by rotating the first containing element 2 in the direction F1 and/or move the second containing element 3 away from the first containing element 2 by rotating the second containing element 3 in the direction F2, so as to allow the container 1 to pass from the closed configuration B to the open configuration A. After removing the peelable second wall 8 (Figure 3) from the first wall 7 both in the first containing element 2 and in the second containing element 3, the user can use the product 30 contained in the cavities 11 of the latter.

Alternately, the user can decide to open, for example, only the first containing element 2 to take the product 30 contained therein, and to use afterwards the remaining product 30 contained in the second containing element 3. For this purpose, the user can separate the first containing element 2 from the second containing element 3, by rotating the latter clockwise (or anti-clockwise) in relation to the first containing element 2 to break the two bridge elements 4. Once the second containing element 3 has been separated from the first containing element 2, the user can open the first containing element 2 and take the product contained in the cavity 11 of the latter.

The container 1 can also be used for containing a further product (that is not shown) comprising two components to be mixed before use, of which, for example, one is pasty and the other is flowable (for example, a material in granules). In this case, after disengaging the first coupling element 12 from the second coupling element 13 and after rotating the second containing element 3 in relation to the first

containing element 2 (or vice versa) as disclosed above, the user can remove the second wall 8 from the first containing element 2 and from the second containing element 3. The user can thus rotate the containing element which contains the flowable component, for example the second containing element 3, in the direction F1 towards the other containing element, i.e. the first containing element 2, to tip the flowable component into the cavity 11 of the latter.

The container 1 disclosed above is therefore significantly versatile, since it can be used as a packaging unit both for products comprising a single component and for products comprising two components which are distinct and intended to be kept separate until use.

CLAIMS

1. Container (1), comprising first containing means (2) and second containing means (3) associated mutually through intended folding means (4) and comprising mutual hooking means (12; 13), said mutual hooking means (12; 13) being such as to keep said first containing means (2) and said second containing means (3) adjacent to one another.
2. Container according to claim 1, wherein said mutual hooking means (12; 13) comprises hooking portion means (12b; 13b) arranged for being engaged to one another.
3. Container according to claim 2, wherein said hooking portion means (12b; 13b) is associated with said first containing means (2) and/or said second containing means (3) through connecting portion means (12a; 13a).
4. Container according to claim 2, or claim 3, wherein said hooking portion means (12b; 13b) are curved.
5. Container according to any one of claims 2 to 4, wherein said hooking portion means (12b; 13b) comprises end portion means (12c, 12d; 13c, 13d) arranged for being at least partially overlapped with one another, so as to enable said hooking portion means (12b; 13b) to be engaged with one another.
6. Container according to any preceding claim, wherein said mutual hooking means (12; 13) comprises a hooking element (12) and a further hooking element (13), said hooking element (12) being associated with said first containing means (2) and said further hooking element (13) being associated with said second containing means (3).
7. Container according to claim 6, as appended to any one of claims 2 to 5, wherein said hooking portion means (12b; 13b) comprises a hooking portion (12b) and a further hooking portion (13b), said hooking portion (12b) being comprised in said hooking element (12) and

said further hooking portion (13b) being comprised in said further hooking element (13).

8. Container according to claim 7, as appended to claim 3 or to any one of claims 4 to 6 as appended to claim 3, wherein said connecting portion means (12a; 13a) comprises a connecting portion (12a) and a further connecting portion (13a), said connecting portion (12a) being arranged for connecting said hooking portion (12b) to said first containing means (2) and said further connecting portion (13a) being arranged for connecting said further hooking portion (13b) to said second containing means (3).

9. Container according to claim 7, or 8, wherein said hooking portion (12b) and said further hooking portion (13b) are curved, said hooking portion (12b) having a convexity facing the direction opposite to said first containing means (2) and said further hooking portion (13b) having a convexity facing said second containing means (3).

10. Container according to claim 9, as appended to claim 5 or to any one of claims 6 to 9 as appended to claim 5, wherein said end portion means (12c, 12d; 13c, 13d) comprises a pair of end portions (12c, 12d) and a pair of further end portions (13c, 13d), said pair of end portions (12c, 12d) being comprised in said hooking portion (12b) and said pair of further end portions (13c, 13d) being comprised in said further hooking portion (13b).

11. Container according to claim 10, wherein said connecting portion (12a) and said further connecting portion (13a) have a length which is different and such as to allow said pair of end portions (12c, 12d) and said pair of further end portions (13c, 13d) to overlap only partly when said first containing means (2) and said second containing means (3) are juxtaposed with one another.

12.Container according to any preceding claim, wherein said intended folding means (4) comprises bridge means (4) arranged for interconnecting said first containing means (2) and said second containing means (3).

5 13.Container according to claim 12, wherein said bridge means (4) comprises a single bridge element (4).

14.Container according to claim 12, wherein said bridge means (4) comprises a pair of bridge elements (4).

10 15.Container according to claim 12, wherein said bridge means (4) comprises a plurality of bridge elements (4).

16.Container according to any preceding claim, wherein said first containing means (2) and/or said second containing means (3) comprise a containing portion (9) defining a cavity (11) suitable for containing a product (30).

17.Container according to claim 16, wherein said containing portion (9) is substantially hemisphere-shaped.

20 18.Container according to claim 16, wherein said containing portion (9) is substantially polyhedron-shaped.

19.Container according to any preceding claim, wherein said first containing means (2) and/or said second containing means (3) comprise gripping means (14) made in one end of said first containing means (2) and/or said second containing means (3), said one end being opposite to said reciprocal hooking means (12; 13).

20.Container according to claim 19, wherein said gripping means (14) comprises a tab (14).

30 21.Container according to any one of claims 12 to 20, wherein said bridge means (4) is made near adjacent portions (5) comprised in peripheral edges (6) of said first containing means (2) and of said second containing means (3).

35 22.Container according to any preceding claim, wherein said first containing means (2) and/or said second

containing means (3) comprise a first wall (7) and a second wall (8) associated with each other by means of a peelable type of welding.

23.Container according to claim 22, as appended to any one
5 of claims 16 to 18, wherein said containing portion (9) is made in said first wall (7).

24.Container according to claim 23, wherein said containing portion (9) is associated with a surrounding flat portion (10) of said first wall (7).

10 25.Container according to any one of claims 22 to 24, wherein said first wall (7) is made of a thermoformable material.

26.Container according to any one of claims 22 to 25, wherein said second wall (8) is made of a material in
15 film.

27.Container according to any preceding claim, wherein said first containing means (2) and/or said second containing means (3) are made at least partly of a transparent material.

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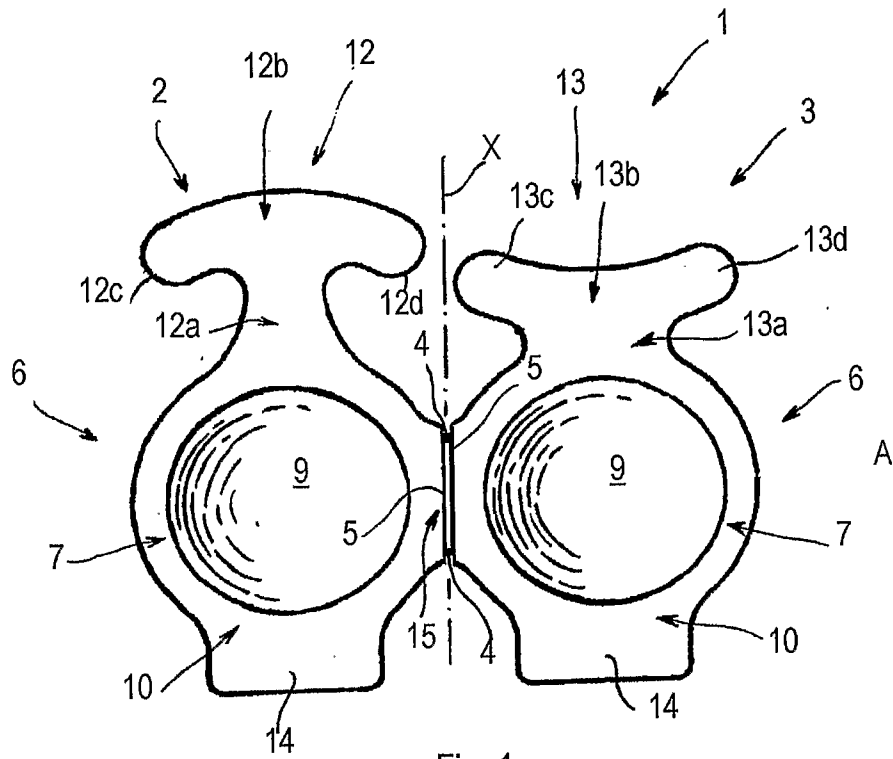


Fig. 1

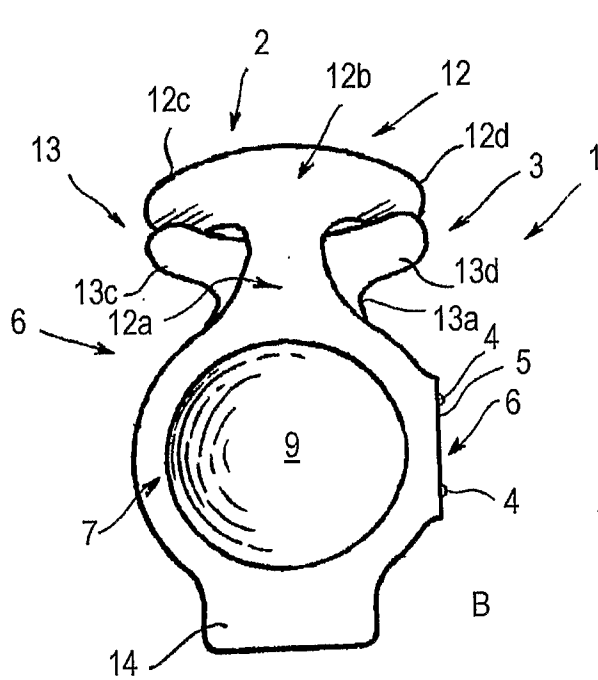


Fig. 2

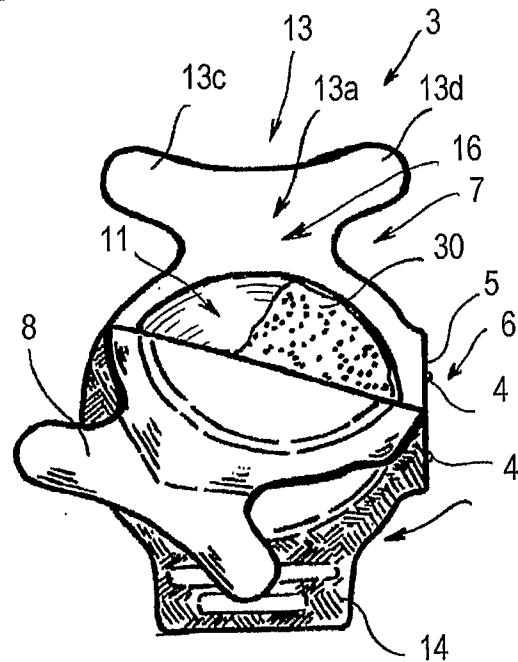


Fig. 3

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