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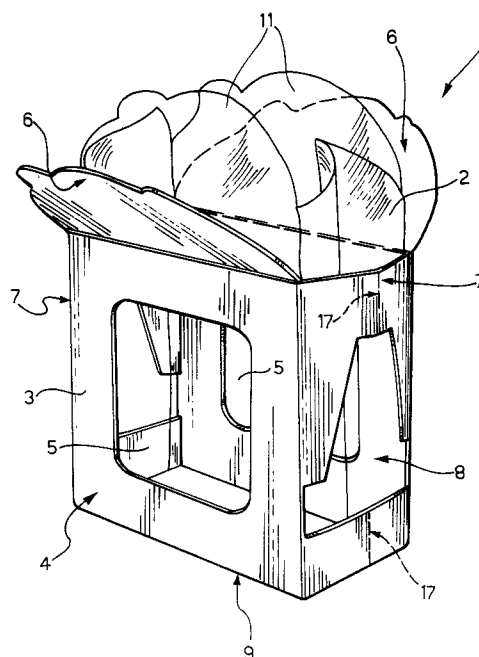
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**AT BE CH DE DK ES FR GB GR IE IT LI LU MC
NL PT SE**(71) Applicant: **SOREMARTEC S.A.**
Drève de l'Arc en Ciel 102
B-6700 Arlon-Schoppach (BE)(84) **BE CH DK ES FR GB GR IE LI LU MC NL PT
SE AT**(71) Applicant: **Ferrero S.p.A.**
Piazzale Pietro Ferrero 1
I-12051 Alba (Cuneo) (IT)(84) **IT**(71) Applicant: **FERRERO OFFENE**
HANDELSGESELLSCHAFT m.b.H.
Hainer Weg 120
D-60599 Frankfurt (DE)(84) **DE**(72) Inventor: **Terrasi, Giuseppe**
Frazione Manera, 14
I-12050 Benevello (Cuneo) (IT)(74) Representative: **Bosotti, Luciano**
c/o JACOBACCI & PERANI S.p.A.
Corso Regio Parco, 27
I-10152 Torino (IT)(54) **A container, for example, for food products such as confectionery products**

(57) The container is composed of a bag (2) and a card packet (3) which encloses the bag (2) and can be extended from a generally folded condition. The bag (2) is connected, for example, by adhesive, to two faces (4) of the card packet (3) which move apart during the extension movement. As a result of its connection to these faces (4) the bag (2) opens, during the extension movement, so as to be arranged for receiving products inside it.

FIG. 3

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The present invention relates to a container according to the preamble to Claim 1.

Containers of this type are currently used, for example, for packaging food products such as confectionery products, for example, sweets, chocolates, pralines, etc.

In these containers, the products are protected and isolated from the exterior by a bag (or envelope) of sheet material which is usually sealed in an airtight manner after it has been filled with a certain quantity of the product. The outer part of the container, referred to below for brevity as the "card packet" is intended, on the one hand, to support the bag in which the products are disposed and, on the other hand, to render the appearance of the container generally more pleasing, particularly as regards the possibility of applying decorations, wording, etc. thereto.

The term "card packet" is generally intended to indicate any type of wrapper formed from an intermediate element of laminar material such as card which, after initial operations for cutting the outlines of the parts, punching the regions which are to be folded or removed, pre-folding regions which are to form folds, etc., is kept in a flattened condition and is then erected or extended to its final position by means of a series of manipulations which, typically, are folding operations.

Typical examples of packets of this type are the card boxes or cases used for packaging sweets, chocolates, pralines, etc.

The techniques for the production of these packets, which are typical of the paper industry, are widely known and do not therefore need to be described herein and, moreover, are not relevant for the purposes of an understanding of the invention. It is also known that, in practice, these packets may have an infinite number of shapes; what is important for the purposes of the implementation of the invention is that the packet in question comprises at least two faces which, when the packet is brought to the extended condition, can be moved apart or opened out from an initial condition in which they are close together.

In the most usual solution, containers of the type specified above, constituted by the bag and the packet, are produced by the separate manufacture of the bag, on the one hand, and of the card packet, on the other. The card packet is then erected to its condition of use and the bag is subsequently inserted therein, before or after receiving the product inside it.

This solution gives rise to many difficulties and problems both as regards the carrying-out of the packaging process and as regards the qualitative appearance of the finished container.

In the first place, it is necessary to insert the bag in the card packet.

If the bag is inserted before it is filled, there is the problem of placing and keeping the edges of its mouth in positions in which they are sufficiently opened out to allow the product to be inserted in the bag.

Then there is the problem of ensuring that the bag can reach and maintain the correct position inside the card packet before and during filling, for example, without moving or tipping over as a result of the products falling into it.

Upon completion of the filling, there is the problem of closing the bag, which often requires airtight sealing of the two edges of the mouth of the bag. In this connection, it should be pointed out that the closure of the bag does not necessarily also involve the closure of the card packet adjacent the mouth of the bag. In fact, in many cases (for example, when the card packet takes the form of a kind of hamper or basket in which the bag is disposed with the products inside it) it is desirable for the card packet to have two separate edges spaced apart adjacent the closure region of the bag. In other cases, on the other hand, it is desirable - after the sealing - for the mouth portion of the bag to be hidden from the outside as a result of the closure of one or more edges of the card packet close to the seal region. Moreover, in other situations, it seems useful to be able to ensure that a single handling operation on the container can simultaneously seal the mouth portion of the bag and close adjacent edges of the card packet.

If the bag is filled and closed before insertion in the card packet, the problem of the handling of the bag arises, particularly when the contents are delicate and therefore susceptible to damage during insertion in the card packet. Above all, the packet must be placed and kept in a precise position during the insertion of the bag. This applies particularly when the bag with the products inside it and the surrounding card packet are required to adopt precisely determined relative positions in the final package, for example, because it is desired to ensure that printing or a design applied to the bag appears in an opening or window in the card packet.

The object of the present invention is to provide a solution which can overcome the problems and the disadvantages indicated above.

According to the present invention, this object is achieved by virtue of a container having the further characteristics given in Claim 1. Advantageous developments of the invention form the subject of subclaims 2 to 8.

The invention will now be described, purely by way of non-limiting example, with reference to the appended drawings, in which:

Figure 1 is a first, perspective view of a container according to the invention, shown in an

initial, folded condition,

Figure 2 is a section taken on the line II-II of Figure 1, and

Figure 3 shows a container according to the invention in its erected or extended condition, in which the container is arranged for receiving products inside it.

In the drawings, a container, generally indicated 1, can be used, for example, for packaging food products such as confectionery products, for example, sweets, chocolates, pralines, etc.

According to a known solution, the container according to the invention is composed essentially of two parts, that is:

- a bag (or envelope) 2 for receiving inside it a filling of products such as the products mentioned above (not shown in the drawings), and
- an outer part 3 which is intended to surround the envelope-like bag 2; this outer part is referred to as a "card packet"; for a complete description of the meaning of this term reference should be made to the introductory portion of the present description.

In the non-limiting example shown in the drawings, the card packet 3 is constituted essentially by a kind of card box which is intended, in the erected condition of use, (Figure 3) to take up a parallelepipedal shape so as to assume, as a whole, an appearance approximately comparable to that of a basket.

The card packet 3 is made (according to widely known criteria) from laminar material such as card.

In the embodiment shown, the packet 3 comprises two rectangular or square larger side surfaces 4 with central holes or windows 5 produced by cutting of the laminar material forming the packet.

On their sides which are uppermost in the drawings, the larger side faces 4 have profiled, apex-like appendages 6 which may either perform a decorative function or may be used as handles to support the container 1.

The larger side faces 4 of the packet 3 are connected to one another as a general bellows-like structure by two smaller side faces 7 also having respective holes or windows 8. In particular, each of the smaller side walls 7 is creased with a central fold line 17 which gives the packet 3 the generally bellows-like structure mentioned.

After manufacture (this aspect will be described further below) the container can be brought to and/or kept in a generally squashed or flattened configuration (precisely, that to which Figures 1 and 2 relate) in which the principal side surfaces 4 of the packet 3 are quite close together; it will be appreciated from the sectional view of Figure 2 that

the term "close together" as used herein indicates, in general, a condition in which they are relatively close together without necessarily implying close proximity or even contact. In this squashed or flattened condition, the smaller side walls 7 are folded in a V-shape along the respective fold lines 17 facing inwardly or, preferably, (as can be seen in Figure 1) outwardly relative to the container 1.

From this condition, which facilitates stacking of the containers 1 in large quantities before use, the packet 3 can be brought to the extended or erected condition (that shown in Figure 3) by the folding-over of further lower appendages 4a, 7a of the side walls 4 and 7 of the packet 3 towards the interior of the container. This is in order to form a base for the extended packet, generally indicated 9 in Figure 3, as a result of the fitting together of the walls or the application of spots of adhesive. Naturally, this is achieved according to criteria widely known in the art which do not need to be described herein and which, moreover, are not relevant for the purposes of the implementation of the invention. In this connection, it should be pointed out once again that the card packet 3 shown in the drawings is purely an example since the invention applies to containers comprising packets of very varied shapes, nevertheless having at least two faces or sides which open out or move apart during the change from the initial folded condition to the final extended condition, as is the case with the faces 4 in the embodiment described herein.

As can best be seen in the sectional view of Figure 2, the bag, which is usually made of thin, laminar material such as transparent plastics sheet (compatible with foodstuffs, if it is used for packaging food products) has, in the embodiment shown, a generally bellows-like shape with side folds 2a and a lower seal region 10 facing towards the appendages 4a, 7a which are intended to form the base 9 in the packet 3. At the mouth of the packet 3 (that is, adjacent the appendages 6) the bag 2 has corresponding mouth edges 11 which may have profiles identical, or almost identical, to those of the appendages 6 of the packet 3.

In this connection, it should be noted that the bag 2 may be formed separately from the packet 3 and then inserted therein, or may be produced almost simultaneously with the card packet 3. For example, the bag 2 may be formed from a continuous tubular wrapper of transparent plastics material which is inserted in the tubular body of the packet 3 and then undergoes sealing and cutting operations to form the lower closure 10, and a cutting operation to form the edges 11, after it has been inserted in the packet 3. This cutting operation may be carried out by the same elements which cut the edges 6, thus exerting a cutting action on the packet and on the bag simultaneously.

Whatever specific solution is used in this respect, a connection is formed between the outer surface of the bag 2 and the packet 3 on the faces 4 which are intended to be opened out or moved apart when the packet is extended.

In the embodiment to which the appended drawings relate, this result is achieved by the application of spots of glue, indicated 12. The spots 12 are applied according to conventional criteria; for example, by pulling the bag 2 at least slightly out of the packet 3 and depositing the glue on the surface of the bag 2 through the windows 5 and on the portion of the bag which projects from the packet and then sliding the bag slightly relative to the packet until the drops of adhesive 12 are brought to positions facing the faces 4 so as to establish the desired connection.

As a result of the connection to the faces 4, when the packet 3 is extended so as to be brought to its erected condition (Figure 3), the movement apart or opening-out of the faces 4 causes simultaneous opening of the bag 2, the mouth edges 11 of which are surely opened out so as to arrange the bag 2 for receiving a filling of products inside it.

It will be appreciated that the solution according to the invention simultaneously achieves a series of advantages.

In the first place, the manufacture and filling of the container are considerably simplified; at least some of the necessary handling steps may be common to both the bag 2 and the surrounding packet 3.

In the second place, the bag 2 and the packet 3 constitute an intermediate product which can be kept in a compact, flattened condition which, at the same time, is complete since it already comprises all the basic parts of the finished container.

In the third place, the extension movement of the card packet 3 surely brings about a corresponding and precise opening movement of the mouth portion of the bag 2. As a result of its connection to the card packet 3, the bag 2 remains precisely in the position initially attributed to it, both throughout all intermediate handling operations, the operation to fill it with the products and also during the closure of its mouth portions.

In particular, this operation can be carried out either independently of the closure of the card packet (for example, as a result of the action of heat-sealing jaws which close the mouth edges 11 of the bag 2 without interfering with the edges 6 of the card packet), or simultaneously with the closure of the card packet (for example, as a result of a closure movement of the edges 6 which correspondingly brings the mouth edges 11 of the bag 2 together so that they can be sealed - for example, by heat-sealing or the application of ultrasound).

Naturally, the principle of the invention remaining the same, the details of construction and forms of embodiment may be varied widely without thereby departing from the scope of the present invention.

Claims

1. A container comprising:
 - a bag (2) which can receive a filling of products in use, and
 - a card packet (3) which surrounds the bag (2) and can be extended from a flattened condition in which at least two faces (4) of the card packet (3) are close together, the at least two faces (4) then moving apart as a result of the extension of the card packet (3),
 characterized in that the bag (2) is connected (12) to the at least two faces (4) so that, when the card packet (3) is extended, the movement apart of the at least two faces (4) causes the bag (2) simultaneously to unfold to an open position.
2. A container according to Claim 1, characterized in that the card packet (3) comprises further faces (7) having a generally bellows-like configuration (7a) and extending so as to connect the at least two faces (4).
3. A container according to Claim 1 or Claim 2, characterized in that the at least two walls (4) have window-like holes (5).
4. A container according to any one of the preceding claims, characterized in that the at least two faces (4) carry associated appendages (4a) which, when the card packet (3) is extended, can form a base (9) of the packet (3).
5. A container according to Claim 4, characterized in that the bag (2) has a seal line (10) adjacent the appendages (4a).
6. A container according to any one of the preceding claims, characterized in that the bag (2) is connected to the at least two faces (4) by gluing (12).
7. A container according to any one of the preceding claims, characterized in that the at least two faces (4) have respective apex portions (6) and in that the bag (2) has corresponding closure edges (11) adjacent the apex portions (6).

FIG. 1

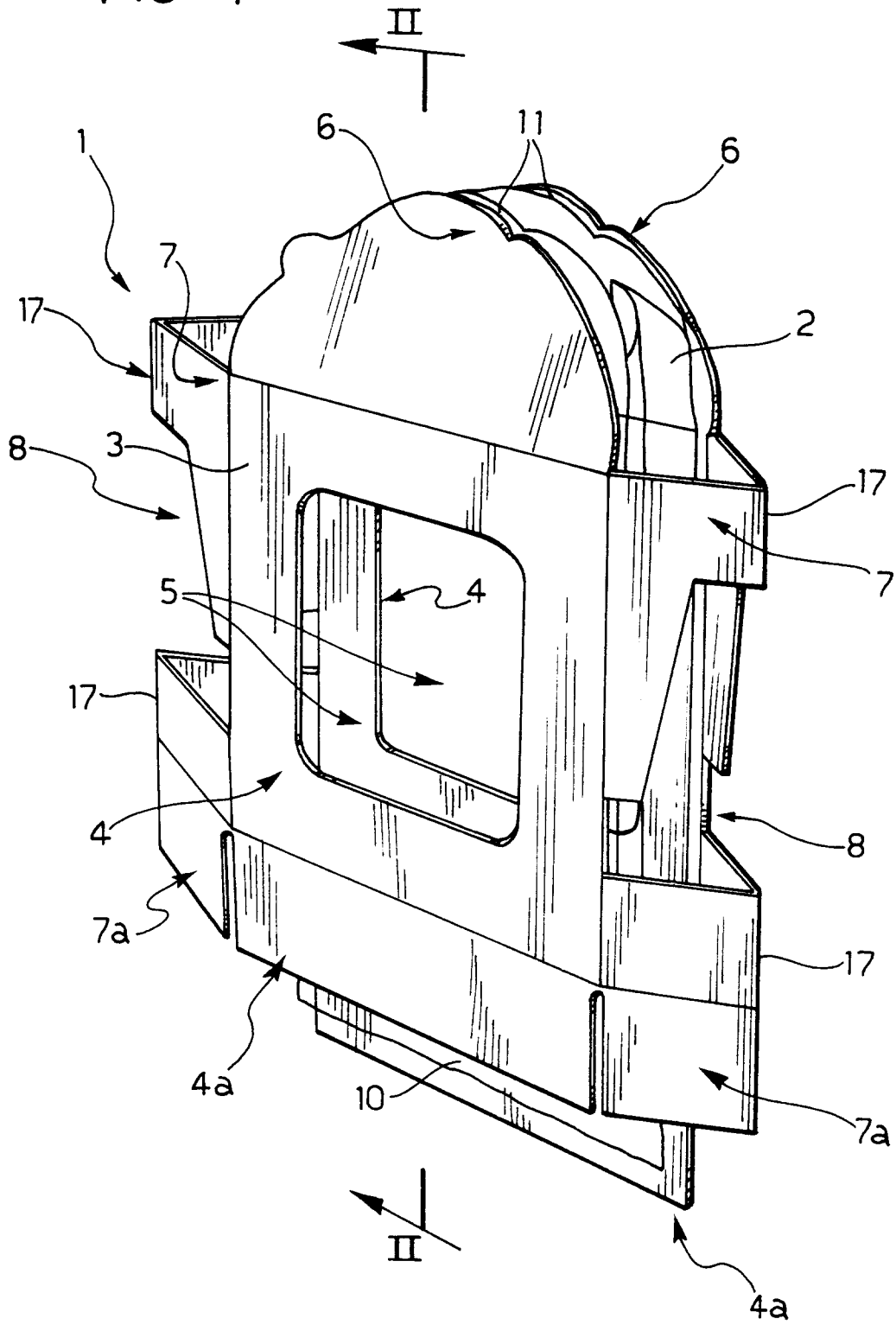


FIG. 2

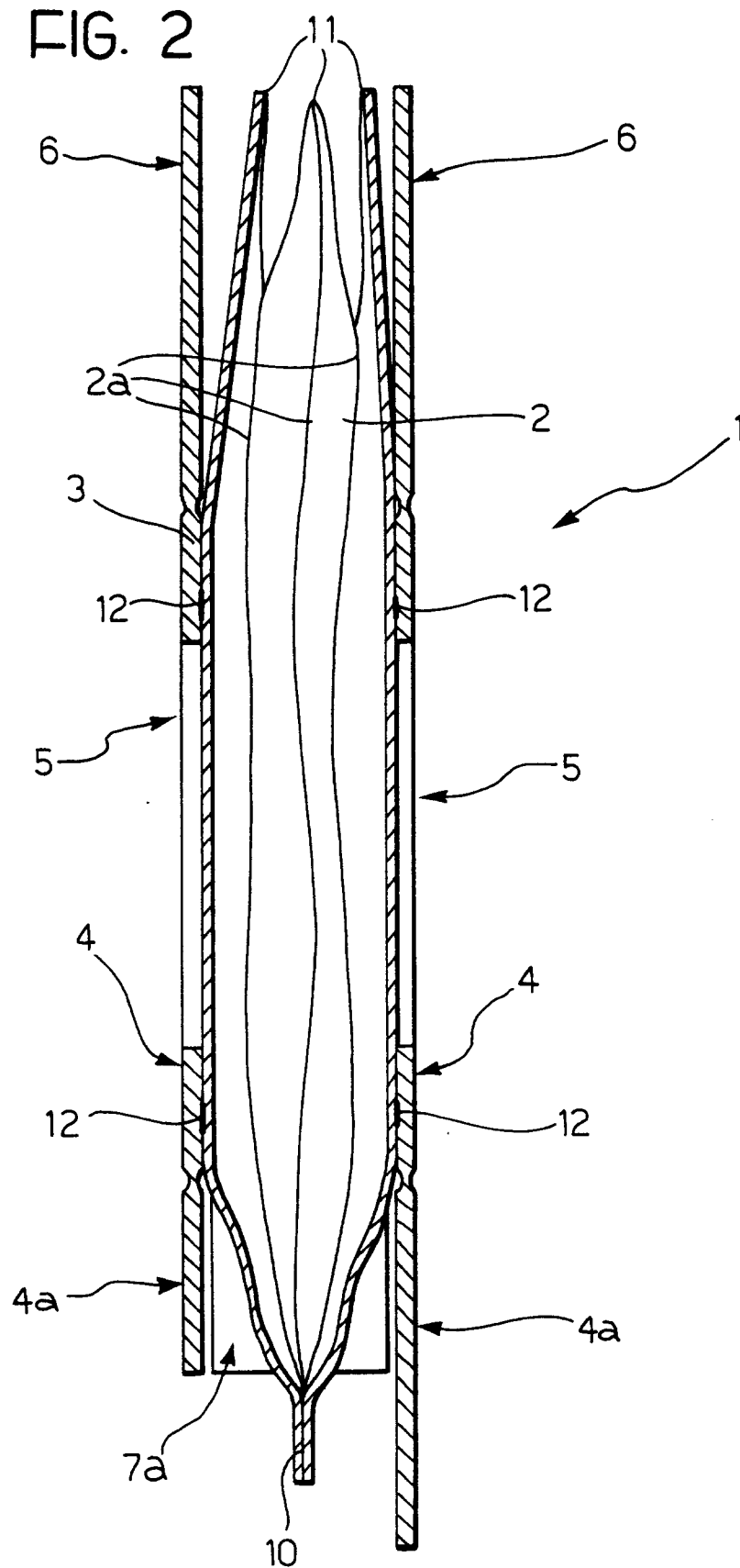


FIG. 3

