



(11) **EP 1 988 027 B9**

(12) **CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:

Corrected version no 1 (W1 B1)

Corrections, see

Claims DE 2, 8, 10

Claims EN 2, 8, 10

Claims FR 2, 8, 10

(51) Int Cl.:

B65D 30/06 (2006.01)

(48) Corrigendum issued on:

25.01.2012 Bulletin 2012/04

(45) Date of publication and mention
of the grant of the patent:

09.03.2011 Bulletin 2011/10

(21) Application number: **08380082.1**

(22) Date of filing: **12.03.2008**

(54) **Bag for packaging food products**

Tasche zum Einpacken von Lebensmittelprodukten

Sachet pour le conditionnement de produits alimentaires

(84) Designated Contracting States:

**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT
RO SE SI SK TR**

(30) Priority: **04.05.2007 ES 200701187**

(43) Date of publication of application:

05.11.2008 Bulletin 2008/45

(60) Divisional application:

09169673.2 / 2 128 036

(73) Proprietor: **GIRNET INTERNACIONAL, S.L.**
08911 Badalona (ES)

(72) Inventor: **Giro Amigo, Ezequiel**
08911 Badalona (ES)

(74) Representative: **Sugrañes Patentes y Marcas**
Calle Provenza 304
08008 Barcelona (ES)

(56) References cited:

EP-A- 0 047 544 EP-A- 0 677 449

ES-U- 1 027 802 US-A- 4 403 637

EP 1 988 027 B9

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

Technical field of the invention

[0001] The present invention relates to a bag for packaging food products, which is particularly applicable to the packaging of fruit and vegetable products, such as citrus fruit or root vegetables.

Background of the invention

[0002] There are many known embodiments of bags for packaging and marketing food products. Particularly well known are breathable bags designed for packaging and marketing fruit and vegetable products such as citrus fruit, root vegetables and suchlike. These bags, unlike conventional plastic bags, allow the product to breathe, lengthening its storage time and enabling the buyer to inspect the appearance, touch and smell of their contents.

[0003] These bags are normally manufactured from a continuous tubular element, made from a flexible and preferably heat-sealable material, generally in the form of mesh, cut transversally to form portions of tubular mesh.

[0004] During the packaging process of the product, the mouths at each end of these portions of tubular mesh are closed separately by staples or welding. To close the mouths at each end of the portions of tubular mesh by heat sealing, they are conventionally provided with strips of a heat-sealable material in pairs, applied to respective sides of the tubular mesh at each end thereof, which are subsequently joined by heat sealing, the end portion of the tubular mesh being partially melted and embedded between the two strips of the same pair. In some variants of bags, the strips applied to the opposite ends of the same side of the tubular mesh are continuously joined and optionally fastened by points to the corresponding side of the tubular mesh.

[0005] This operation requires the use of sufficient heat from outside to melt the material that constitutes the inner face of the strips and the tubular mesh, the products contained in the bag then being closed therein without it being possible to remove them unless the bag is broken.

[0006] It should be stated that the aforementioned continuous tubular mesh is occasionally made from a flat mesh, the longitudinal edges of which are joined to form the continuous tubular mesh.

[0007] Spanish utility model No. U1050533 discloses a bag like those described above, the mouths at the ends of which have been closed by heat sealing the strips of heat-sealable material. In the bag disclosed therein one of the strips has been cut at each end, the central portion of said strip having been removed. The remainder of the strip, the ends of which are firmly secured at respective ends of the bag and solidly fastened thereto by heat-sealed points, determines a handle whereby to hold the bag.

[0008] The object of utility model No. U9401000 presents, among others, the drawback that, when the bag is completely filled with objects, the handle is in a tight position very close to the surface of the bag, which makes it difficult to hold and use.

[0009] Furthermore, it has been seen that in bags with a large capacity, where the strip is of a similar length to the bag, the relatively long length of the bag and the strip make the bag difficult to transport when it is suspended from the handle, as the width of the bag is not significantly reduced and it is at too low a height, hanging at knee-level or below the knees, so that when the bag rotates slightly it can easily knock the user's legs.

Explanation of the invention

[0010] Essentially, the bag for packaging food products that is the object of the present invention is characterised in that, being of the type that comprises a flexible tubular body of a woven or extruded tubular mesh, the longitudinal ends of which are closed and fastened to the respective ends of a flexible oblong element that acts as a handle, said oblong element is considerably shorter than the tubular body of the bag; and in that the tubular body is longitudinally overdimensioned in relation to the volume of the products housed therein, so that when it is suspended from the oblong element that acts as a handle, it is U-shaped, with its end sections empty and in a vertical position and with its central portion filled with products. Said bag is provided with a second oblong element, which is also solidly joined to both closed ends of the tubular body, of a considerably shorter length than that of the oblong element that acts as a handle whereby to suspend the bag.

[0011] According to another characteristic of the invention, the oblong element that acts as a handle whereby to suspend the bag is shorter than half of the length of the tubular body of the bag, and it has a maximum width of 30 mm.

[0012] Preferably, said oblong element is a laminar strip that is adapted to carry printed information.

[0013] In a preferred embodiment, said second oblong element is a second flexible laminar strip.

[0014] According to another characteristic of the invention, the end portions of said second strip are considerably narrower than the central portion.

[0015] According to another characteristic of the invention, the central portion of the second strip is adapted to carry printed information.

[0016] According to another characteristic of the invention, the oblong element that acts as a handle and the second oblong element, where applicable, are solidly joined to both longitudinal ends of the tubular body by welding.

[0017] According to another characteristic of the invention, the welding is carried out by applying ultrasound.

[0018] According to another characteristic of the invention, the oblong element that acts as a handle and the

second oblong element, if applicable, are solidly joined to both longitudinal ends of the tubular body by stapling.

[0019] According to another characteristic of the invention, the end sections of the tubular mesh that constitutes the tubular body, the longitudinal ends of which are solidly joined to the oblong element that acts as a handle and to the second oblong element, if applicable, are gathered in the area of the joint with or without a particular order.

Brief description of the drawings

[0020] In the attached drawings an embodiment of the bag that is the object of the invention is illustrated by means of a non-limiting example. In said drawings:

Fig. 1 shows a perspective view of a bag filled and with only one first oblong element as a handle. It does not form part of the invention.

Fig. 2 is a similar view to that shown in Fig. 1, of a bag with two flexible oblong elements; and

Fig. 3 shows a larger-scale cross-sectional view, taken along III-III of Fig. 1.

Detailed description of the drawings

[0021] In Figs. 1 and 2 it can be seen that the bag 1 for packaging products 2 comprises a tubular body 3, preferably made from a flexible mesh, the central portion 3a of which is designed to contain the products 2 contained in the bag 1.

[0022] The longitudinal ends 3b, 3c of the mesh are closed, solidly joined to which are the ends of at least a first oblong element 4, shown as a flexible strip, which acts as a handle 5 whereby to suspend the bag 1.

[0023] The flexible strip that constitutes the handle 5 in the examples in Figs. 1 and 2 is laminar and is shorter than half of the length of the tubular body 3, so that when the bag is resting on a surface it adopts a position similar to that shown in Fig. 1. Said flexible strip has a maximum width of 30 mm and is adapted to contain printed information about the products 2 contained in the bag 1.

[0024] As regards the length of the oblong element 4, it is between approximately 10 cm and approximately 25 cm long, which results in a length that is considerably shorter than the length of conventional bags.

[0025] The invention also contemplates equivalent variants for the oblong element 4, which can also act as a handle 5, such as, in addition to the flexible strip shown herein, a cord, a string, a cable, a tape, a strap, a tubular element, an element wound around itself e.g. made from mesh, twine, etc., made from fabric, plastic, metal wire, leather or another material that can support the weight of the full bag 1.

[0026] Returning to the example shown in Figs. 1 and 2, in order to keep the flexible strip that acts as a handle upright even when the bag 1 is resting on the surface of a counter, a shelf or suchlike, a second oblong element 6 is provided between the end portions 3b and 3c, con-

sisting of a second flexible laminar strip, as shown in the example in Fig. 2, preferably adapted to receive printed information, of a considerably shorter length than the oblong element 4 that acts as a handle 5. As is shown in Fig. 2, this second laminar strip prevents the end portions 3b and 3c of the tubular body 3 from separating and ensures that the flexible strip that acts as a handle 5, which is strong enough, is not taut and remains upright in a curved shape, thus making it easier for the user to take hold of.

[0027] In the case of this example, wherein the oblong element 4 consists of a strip, if it is not designed to be used as a support for printed information or when the necessary printed information does not fit on this strip or cannot be applied to said strip as it creases when used as a handle 5, a second flexible laminar strip as a second oblong element 6 can act as a support for a self-adhesive label or can be printed on directly. For this purpose, the central portion 6a of this second laminar strip can be considerably wider than its end portions 6b, 6c, as shown in Fig. 2.

[0028] Unlike known bags, the bag 1 of the invention is overdimensioned, in relation to the volume of products 2 housed therein, so that when it is suspended from the handle 5, the bag is visibly U-shaped, with its end portions 3b, 3c empty and in a vertical position and with its central portion 3a filled with products 2. If the bag were completely filled, it could not adopt the preferred form shown in Figs. 1 and 2.

[0029] The solid joint between the end portions 3b and 3c of the tubular mesh and the corresponding ends of the oblong elements 4 and 6 can be created using conventional methods, by heat sealing or by stapling.

[0030] If the tubular body 3 consists of a woven tubular mesh, made from a material that is woven to form a mesh with wide openings with plastic filaments that are strong enough to support the planned weight of the product 2, or an extruded mesh wherein the tubular mesh is produced by extrusion and expansion of a continuous laminar element made from a plastic material that is subsequently provided with multiple openings, which after a stretching or extending process is transformed into a mesh with a similar appearance to that of a woven mesh, the heat sealing operation can be carried out by ultrasound.

[0031] To do this, the two longitudinal end portions 3b and 3c are gathered in the area where they are joined to the oblong element 4, or both oblong elements 4 and 6, if applicable, gathered randomly or folded, preferably along longitudinal folds, and are applied to the ends of said oblong elements 4 and 6, which if consisting of laminar strips can partially (see Fig. 3) or fully surround said end portions 3b and 3c. The material of the mesh and part of the laminar strips are melted by applying ultrasound.

[0032] Fig. 3 schematically shows a cross section of the area where the oblong element 4 consisting of a flexible strip and the longitudinal end 3b of the bag 1 of Fig.

1 are joined. In this Fig. 3 the thicknesses of the portion of gathered mesh and the strip have been exaggerated to make it easier to understand.

Claims

1. Bag (1) containing food products, particularly fruit and vegetable products, which comprises a flexible tubular body (3) of a woven or extruded tubular mesh, the central portion (3a) of which is designed to house the products contained in the bag and the longitudinal ends (3b, 3c), which are closed, and a flexible oblong element (4), such as a strip, being solidly joined to both closed ends, which acts as a handle (5) whereby to suspend the bag, **characterised in that** said flexible oblong element is shorter than the tubular body of the bag and **in that** the bag has a second oblong element (6), such as a second strip, which is also solidly joined to both closed ends (3b, 3c) of the tubular body (3) and is shorter than the oblong element (4) that acts as a handle (5) whereby to suspend the bag, the tubular body being longitudinally overdimensioned in relation to the volume of products housed therein, so that when suspended from the oblong element that acts as a handle, it is U-shaped, with its end portions empty and in a vertical position and with its central portion filled with products.
2. Bag (1) containing products according to claim 1, **characterised in that** this second oblong element (6), that prevents the closed ends (3b, 3c) of the tubular body (3) from separating, ensures that the flexible oblong element (4) that acts as a handle (5), which is strong enough, is not taut and remains upright in a curved shape, thus making it easier for the user to take hold.
3. Bag (1) containing products according to claims 1 or 2, **characterised in that** the oblong element (4) that acts as a handle (5) wherefrom to suspend the bag is shorter than half of the length of the tubular body of the bag, and it has a maximum width of 30 mm.
4. Bag (1) containing products according to the previous claims, **characterised in that** the oblong element (4) that acts as a handle (5) whereby to suspend the bag is a laminar strip (4) and is adapted to carry printed information.
5. Bag (1) containing products according to claim 4, **characterised in that** the second oblong element (6) is a second flexible laminar strip.
6. Bag (1) containing products according to claim 5, **characterised in that** the end portions (6b, 6c) of said second strip are considerably narrower than the

central portion (6a).

7. Bag (1) containing products according to any of the previous claims, **characterised in that** the central portion (6a) of the second strip (6) is adapted to carry printed information.
8. Bag (1) containing products according to claim 1, **characterised in that** the flexible oblong element (4) that acts as a handle (5) and the second oblong element (6) are solidly joined to both longitudinal ends (3b, 3c) of the tubular body (3) by welding.
9. Bag (1) containing products according to claim 8, **characterised in that** the welding is carried out by applying ultrasound.
10. Bag (1) containing products according to claim 1, **characterised in that** the flexible oblong element (4) that acts as a handle (5) and the second oblong element (6) are solidly joined to both longitudinal ends (3b, 3c) of the tubular body (3) by stapling.
11. Bag (1) containing products according to any of claims 8 to 10, **characterised in that** the end sections of the tubular mesh that constitutes the tubular body (3), the longitudinal ends (3b, 3c) of which are solidly joined to the flexible oblong element (4) that acts as a handle (5) and to the second oblong element (6) are gathered in the area of the joint with or without a particular order.

Patentansprüche

1. Beutel (1) enthaltend Lebensmittel, insbesondere Obst- und Gemüseprodukte, welcher einen biegsamen rohrförmigen Körper (3) aus einem gewobenen oder stranggepressten Netz umfasst, dessen mittlerer Teil (3a) dazu vorgesehen ist, die im Beutel enthaltenen Produkte und die geschlossenen Längsenden (3b, 3c) aufzunehmen, und ein biegsames, längliches Element (4), wie zum Beispiel ein Streifen, das fest an beiden geschlossenen Enden verbunden ist, welche als Griff (5) fungiert, wobei es den Beutel aufhängt, **dadurch gekennzeichnet, dass** das genannte biegsame, längliche Element kürzer als der rohrförmige Körper des Beutels ist, und dass der Beutel ein zweites längliches Element (6) hat, wie zum Beispiel einen zweiten Streifen, welches ebenfalls fest an beiden geschlossenen Enden (3b, 3c) des rohrförmigen Körpers (3) verbunden ist, und kürzer ist als das längliche Element (4), welches als Griff (5) fungiert, wobei es den Beutel aufhängt, wobei der rohrförmige Körper im Verhältnis zum Volumen von darin aufgenommenen Produkten der Länge nach überdimensioniert ist, so dass, wenn er von dem länglichen Element, das als Griff fungiert, auf-

gehängt ist, er eine U-Form hat, wobei seine Endteile leer sind und sich in einer vertikalen Position befinden, und wobei sein mittleres Teil mit Produkten gefüllt ist.

2. Beutel (1) enthaltend Produkte nach Anspruch 1, **dadurch gekennzeichnet, dass** dieses zweite längliche Element (4), das verhindert, dass sich die geschlossenen Enden (3b, 3c) des rohrförmigen Körpers (3) trennen, gewährleistet, dass das biegsame, längliche Element (6), das als Griff (5) fungiert, welches stark genug ist, nicht gespannt wird und aufrecht in einer gekrümmten Form bleibt, wodurch es für den Benutzer einfacher wird, es zu ergreifen.
3. Beutel (1) enthaltend Produkte nach den Ansprüchen 1 oder 2, **dadurch gekennzeichnet, dass** das längliche Element (4), das als Griff (5) fungiert, von dem aus der Beutel aufgehängt wird, kürzer als die Hälfte der Länge des rohrförmigen Körpers des Beutels ist, und eine maximale Breite von 30 mm hat.
4. Beutel (1) enthaltend Produkte nach den vorherigen Ansprüchen, **dadurch gekennzeichnet, dass** das längliche Element (4), das als Griff (5) fungiert, wobei der Beutel aufgehängt wird, ein flächiger Streifen (4) ist, und dazu angepasst ist, gedruckte Informationen zu tragen.
5. Beutel (1) enthaltend Produkte nach Anspruch 4, **dadurch gekennzeichnet, dass** das zweite längliche Element (6) ein zweiter biegsamer, flächiger Streifen ist.
6. Beutel (1) enthaltend Produkte nach Anspruch 5, **dadurch gekennzeichnet, dass** die Endteile (6b, 6c) des genannten zweiten Streifens deutlich enger als der mittlere Teil (6a) sind.
7. Beutel (1) enthaltend Produkte nach den vorherigen Ansprüchen, **dadurch gekennzeichnet, dass** der mittlere Teil (6a) des zweiten Streifens (6) dazu angepasst ist, gedruckte Informationen zu tragen.
8. Beutel (1) enthaltend Produkte nach Anspruch 1, **dadurch gekennzeichnet, dass** das biegsame, längliche Element (4), das als Griff (5) fungiert, und das zweite längliche Element (6) durch Schweißen fest an beiden Längsenden (3b, 3c) des rohrförmigen Körpers (3) verbunden sind.
9. Beutel (1) enthaltend Produkte nach Anspruch 8, **dadurch gekennzeichnet, dass** das Schweißen durch Anwendung von Ultraschall ausgeführt wird.
10. Beutel (1) enthaltend Produkte nach Anspruch 1, **dadurch gekennzeichnet, dass** das biegsame, längliche Element (4), das als Griff (5) fungiert, und das

zweite längliche Element (6) durch Klammern fest an beiden Längsenden (3b, 3c) des rohrförmigen Körpers (3) verbunden sind.

11. Beutel (1) enthaltend Produkte nach einem der Ansprüche 8 bis 10, **dadurch gekennzeichnet, dass** die Endabschnitte des rohrförmigen Netzes, welches den rohrförmigen Körper (3) bildet, dessen Längsenden (3b, 3c) fest an dem biegsamen, länglichen Element (4), das als Griff (5) fungiert, und an dem zweiten länglichen Element (6) verbunden sind, in dem Bereich der Verbindung mit oder ohne eine bestimmte Reihenfolge angesammelt sind.

Revendications

1. Sac (1) contenant des produits alimentaires, particulièrement des fruits et des légumes, qui comprend un corps tubulaire flexible (3) d'une maille tubulaire extrudée ou tissée, dont la partie centrale (3a) est conçue pour loger les produits contenus dans le sac et les extrémités longitudinales (3b, 3c), qui sont fermées, et un élément oblong flexible (4), tel qu'une bande, solidement unie aux deux extrémités fermées, qui agit comme une anse (5) pour ainsi suspendre le sac, **caractérisé en ce que** ledit élément oblong flexible est plus court que le corps tubulaire du sac et **en ce que** le sac a un deuxième élément oblong (6), tel qu'une deuxième bande, qui est également solidement unie aux deux extrémités fermées (3b, 3c) du corps tubulaire (3) et est plus court que l'élément oblong (4) qui agit comme une anse (5) pour ainsi suspendre le sac, le corps tubulaire étant surdimensionné longitudinalement par rapport au volume des produits logés en son sein, de manière à ce que lorsqu'il est suspendu de l'élément oblong qui agit comme une anse, il a une forme de U, avec ses parties extrêmes vides et en position verticale et avec sa partie centrale pleine de produits.
2. Sac (1) contenant des produits selon la revendication 1, **caractérisé en ce que** ce deuxième élément oblong (6), qui prévient que les extrémités fermées (3b, 3c) du corps tubulaire (3) se séparent, garantie que l'élément oblong flexible (4) qui agit comme une anse (5), qui est suffisamment fort, n'est pas tendu et demeure droit avec une forme courbée, en rendant ainsi plus facile la préhension pour l'utilisateur.
3. Sac (1) contenant des produits selon les revendications 1 ou 2, **caractérisé en ce que** l'élément oblong (4) qui agit comme une anse (5) à partir duquel est suspendu le sac est plus court que la moitié de la longueur du corps tubulaire du sac, et il a une largeur maximale de 30 mm.
4. Sac (1) contenant des produits selon les revendica-

tions antérieures, **caractérisé en ce que** l'élément oblong (4) qui agit comme une anse (5) par lequel est suspendu le sac est une bande laminaire (4) et est adaptée pour porter de l'information imprimée.

5

5. Sac (1) contenant des produits selon la revendication 4, **caractérisé en ce que** le deuxième élément oblong (6) est une deuxième bande laminaire flexible.

10

6. Sac (1) contenant des produits selon la revendication 5, **caractérisé en ce que** les parties extrêmes (6b, 6c) de ladite deuxième bande sont considérablement plus étroites que la partie centrale (6a).

15

7. Sac (1) contenant des produits selon les revendications antérieures, **caractérisé en ce que** la partie centrale (6a) de la deuxième bande (6) est adaptée pour porter de l'information imprimée.

20

8. Sac (1) contenant des produits selon la revendication 1, **caractérisé en ce que** l'élément oblong flexible (4) qui agit comme une anse (5) et le deuxième élément oblong (6) sont solidement unis aux deux extrémités longitudinales (3b, 3c) du corps tubulaire (3) par soudure.

25

9. Sac (1) contenant des produits selon la revendication 8, **caractérisé en ce que** la soudure est réalisée par ultrasons.

30

10. Sac (1) contenant des produits selon la revendication 1, **caractérisé en ce que** l'élément oblong flexible (4) qui agit comme une anse (5) et le deuxième élément oblong (6) sont solidement unis aux deux extrémités longitudinales (3b, 3c) du corps tubulaire (3) par agrafage.

35

11. Sac (1) contenant des produits selon l'une quelconque des revendications 8 à 10, **caractérisé en ce que** les sections extrêmes de la maille tubulaire qui constitue le corps tubulaire (3), dont les extrémités longitudinales (3b, 3c) sont solidement unies à l'élément oblong flexible (4) qui agit comme une anse (5) et au deuxième élément oblong (6), sont assemblées dans la zone de l'union avec ou sans un ordre particulier.

40

45

50

55

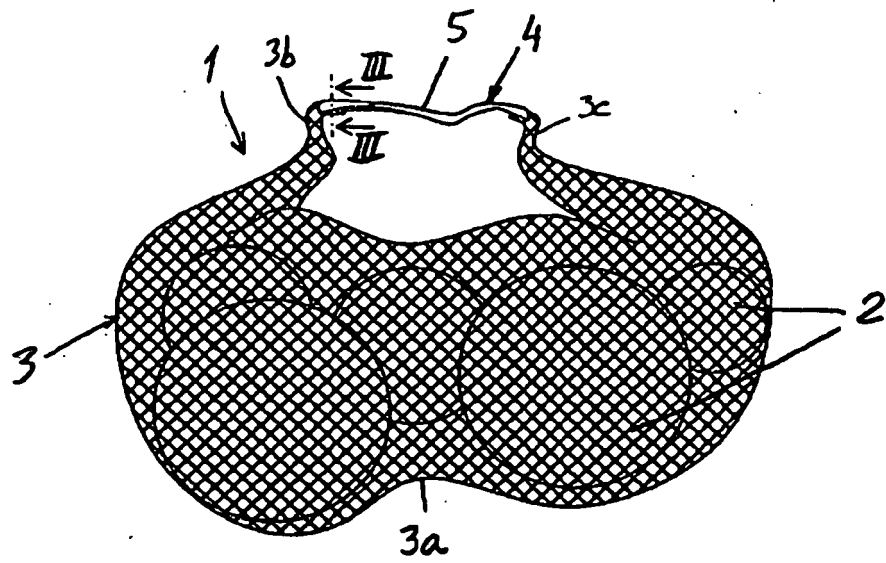


Fig. 1

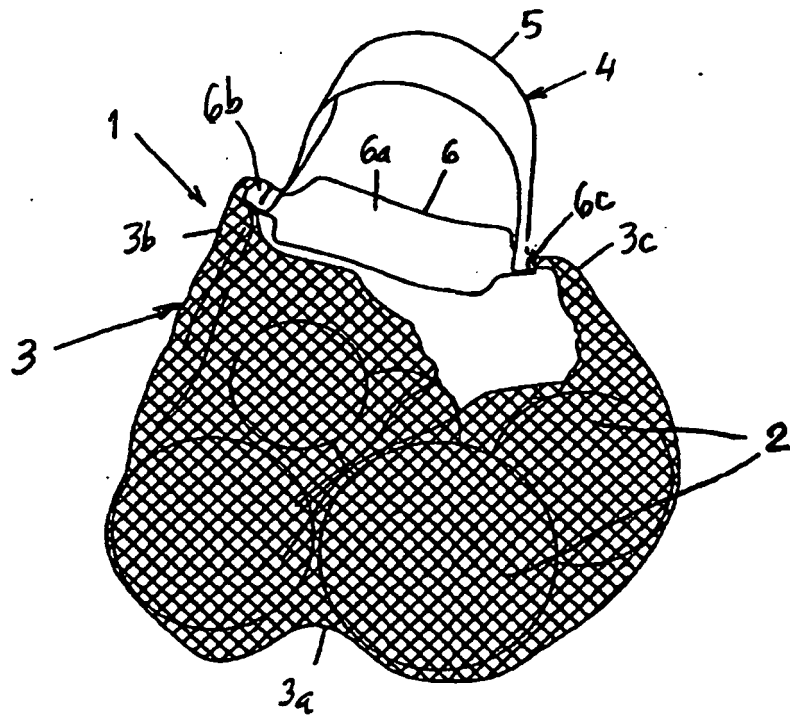


Fig. 2

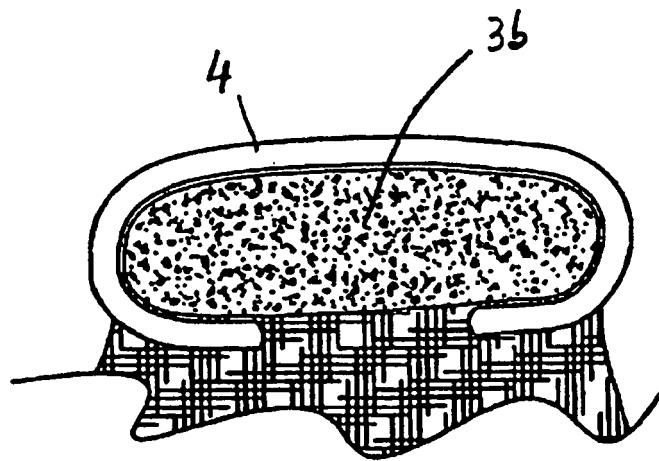


Fig. 3

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- ES U1050533 [0007]
- ES U9401000 [0008]