(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 2 248 734 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
10.11.2010 Bulletin 2010/45

(51) Int Cl.:
B65D 33/00 *(2006.01)*

(21) Application number: **10004768.7**

(22) Date of filing: **06.05.2010**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
BA ME RS

(30) Priority: **08.05.2009 ES 200900855 U**

(71) Applicant: **Seinec, S.A.**
08459 Sant Antoni de Vilamajor (ES)

(72) Inventor: **Lopez Fernandez, Javier**
08459 Sant Antoni de Vilamajor
Barcelona (ES)

(74) Representative: **Barroso Sánchez-Lafuente, Ignacio M.**
Barroso Hernandez
C/ Balmes 92 2° 1a
08008 Barcelona (ES)

(54) **A packaging**

(57) This packaging comprises a tubular body (1) being inferiorly provided with a transversal fold (15) being at a distance from its lower end which is sensibly equal to one-half of the width of the sides (11) and in said tubular body (1) defining a lower portion (16) being arranged in a laid down arrangement on a first larger face (13) of the packaging and through sealing means (3) having its end fixed to said first larger face (13), said lower portion (16) in the spread out position of the packaging and together with a portion of equal length of the second larger face (14) of the packaging defining a flat base (17) of rectangular contour wherein the sealing means (3) are arranged at one of the ends of the aforementioned flat base (17).

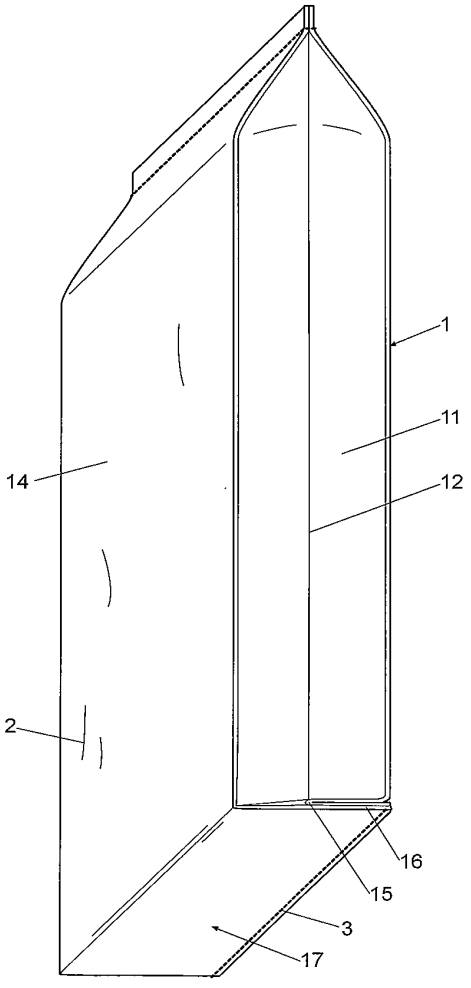


Fig. 2

EP 2 248 734 A1

Description

Object of the invention

[0001] The present invention relates to a packaging being of the type of those comprising a tubular body being formed from a mono- or multilayer sheet and provided at each of the sides with a respective longitudinally oriented gusset fold for its folding into a flat arrangement and at the opposite ends with opening and base sealing means, said tubular body thus delimiting an inner cavity being intended to contain the packaged product.

Background of the invention

[0002] There exist at present in the market different packagings being made as by way of sacks or bags and intended to contain different products, said packagings having a tubular configuration being sealed at the upper and lower ends. These packagings in a general manner have two opposite larger faces and two also opposite sides, each of these latter in some cases longitudinally having a respective gusset fold defining a bellows being intended to allow the empty packaging to be folded into a flat arrangement.

[0003] As for the base sealing means, two clearly different means are generally used.

[0004] In some cases the base is simply sealed by means of a transversal seam being placed at the centre of the base. These sealing means present several drawbacks from among which it is worth mentioning that a flat base is not defined in the packaging, this reducing the stability of the packaging when this latter contains a reduced quantity of product, and that the weight of the product acts directly on the seam, this latter being thus subjected to a lateral pressure or stretching favouring the formation of interstices through which the packaged product leaks especially when being fine such as for example in the case of meals or ground feeds. Another of the drawbacks of this central seam is that the base is not continuous but interrupted by the seam, which prevents the base from being provided with a regular print and deteriorates the product's appearance when the base of the packaging is in a visible arrangement, such as for example during the product's storage and display with the packagings stacked in a lying position.

[0005] In another case and as is also known, the packagings have a flat base being defined by folding the lateral faces of the packaging towards the central region of the base, in such a way that they are arranged in an overlapping arrangement. This type of flat bottom exteriorly incorporates an additional sheet member being stuck as a by way of patch on the aforementioned overlapping portions, in such a way that they are not visible from the outside and the outer appearance of the flat base is thus improved.

[0006] These flat bottoms also have some drawbacks from among which can be pointed out the incorporation of an additional member being supplementary to the actual packaging, and a bigger manufacturing difficulty due to the sticking operation for the aforementioned additional member. This sticking creates problems when the additional member and the sheet making up the packaging are formed of closed-pore materials, these latter being specially indicated when the packaging has to meet particular requirements, such as tightness and opacity, since in these cases the glue migrates and is transferred to the adjacent packagings during the period elapsing from their manufacture up to their shipment, said packagings during said period remaining in a folded and stacked arrangement thus causing the packagings to be stuck to each other, which later on hinders their manipulation during the filling and sealing operations.

[0007] The technical problem to be solved is thus that of developing a packaging being specially indicated for the packaging of different products and also being resistant and having a continuous flat bottom so as to thus allow it to be correctly printed and to have an aesthetically correct appearance, said packaging also being easy to manufacture and fit to be formed from the very tubular body of the packaging, i.e. without the incorporation of additional members.

Description of the invention

[0008] The packaging being the object of the invention, being of the type of those comprising a tubular body being formed from a mono- or multilayer sheet and provided at each of its sides with a respective longitudinally oriented gusset fold for its folding into a flat arrangement and with opening and base sealing means, has constructive particularities being aimed at achieving the targeted objectives as regards the procurement of a strong sack having a continuous and flat bottom and being easy to manufacture without the incorporation of additional members.

[0009] For such a purpose and according to the invention the tubular body is inferiorly provided with a transversal fold being at a distance from its lower end which is sensibly equal to one-half of the width of the sides of the packaging and in said tubular body defining a lower portion being arranged in a laid down arrangement on a first larger face of the packaging and through sealing means having its end fixed to said first larger face, said lower portion in the spread out position of the packaging and together with a portion of equal length of the second larger face of the packaging defining a flat base of rectangular contour wherein the sealing means are arranged at one of the ends of the aforementioned flat base.

[0010] The arrangement of the sealing means at one of the ends of the flat base determines that the weight of the product being contained in the packaging in its majority acts on the transversal fold being defined in the central region of the base rather than on the sealing means, these latter having been shifted to a side, said arrangement thus practically totally eliminating the risk of deterioration of the sealing means due to the action of

the product's weight and of product leaks through the packaging sealing region.

[0011] According to the invention the outer surface of the flat base is formed by a continuous extension of the second larger face of the packaging, the base thus providing an excellent aesthetic appearance and forming a surface being fit to allow a correct printing of the packaging and even of its base.

[0012] In an embodiment of the invention the sealing means establishing the fixing between the end of the lower portion of the tubular body and the first larger side of the packaging define at least one sealing line being oriented in a direction being sensibly parallel to the end of said lower portion and are preferentially defined by sewing, although other fixing means are not to be discarded such as by welding or gluing, in each case depending on the type of material forming the packaging.

[0013] With the configuration having been described above, in an embodiment of the invention the tubular body of the packaging is made up by a multilayer sheet comprising a layer of woven raffia of polypropylene being laminated with bioriented polypropylene film. This type of multilayer sheet, in combination with the features relating to the flat bottom as described above, determine that the obtained packaging besides having a mechanical strength being adequate for supporting the product's weight is also endowed with ideally suited moisture and odour insulating and leak preventing properties and with those allowing to preserve the product being contained in it from the sunlight.

Description of the figures

[0014] To complement the description being given and in order to facilitate the understanding of the features of the invention the present specification is being accompanied by a set of drawings wherein with a merely illustrative and nonlimiting character the following has been shown:

- Figure 1 shows a lateral perspective view from above of an exemplary embodiment of the packaging of the invention wherein the base fixing and sealing means are represented by a seam.
- Figure 2 shows a lateral perspective view from below of the packaging of the foregoing figure wherein the continuity of the second larger face of the packaging on the outside of the flat base can be observed.
- Figures 3, 4, 5 and 6 each show a profile view of a lower portion of the packaging and correspond to successive stages of its manufacture in order to facilitate the identification of the different regions of the packaging which will be alluded to in the description of said embodiment.
- Figure 7 shows an enlarged detail of a cross-section of the sheet being used in this exemplary embodiment for forming the packaging.

Preferential embodiment of the invention

[0015] As can be seen in the attached figures the packaging comprises a tubular body (1) being formed from a multilayer sheet (2) and having: two sensibly equal sides (11) being each provided with a respective longitudinally oriented gusset fold (12), a first larger face (13), and a second larger face (14) being opposite to the former one.

[0016] The tubular body (1) inferiorly has a transversal fold (15) being at a distance from its lower end which is sensibly equal to one-half of the width of the sides (11), said transversal fold (15) in the tubular body (1) delimiting a lower portion (16) being arranged in a laid down arrangement on the first larger face (13) of the packaging, said end being fixed to said first larger face (13) by sealing means (3) that in the example being shown are represented by a seam being parallel and next to the aforementioned end of the lower portion (16) of the tubular body.

[0017] Together with a portion of equal length of the second larger face (14) of the packaging the lower portion (16) defines a flat and continuous base (17) of rectangular contour wherein the sealing means (3) are arranged at one of the ends of the aforementioned flat base (17) and wherein the outer surface of said flat base is made up by an extension of the second larger face (14) of the packaging and is thus fit to allow its correct printing.

[0018] As can be seen in figures 1 and 2, the packaging is sealed at its upper end with sealing means (4) being in this exemplary embodiment represented by a transversal seam.

[0019] With the above-described configuration the flat base (17) of the packaging can be easily manufactured, such as can be observed in figures 3 through 6 respectively showing:

- the forming of the transversal fold (15) and the defining in the tubular body of the end portion (16) having a length being sensibly equal to one-half of the width of the sides (11),
- the lowering of the end portion (16) onto the first larger face (13) of the tubular body,
- the spreading out of the packaging, the end portion (16) together with a portion of equal length of the second larger face (14) defining the flat base (17), and
- the lateral lowering of the tubular body onto the side corresponding to the second larger face (14) in order to thus facilitate the attachment by sewing of the end of the end portion (16) of the tubular body to the first larger face (13) of the packaging.

[0020] As can be observed in the detail of figure 7, the multilayer sheet (2) forming the packaging is made up by a layer of woven raffia (21) of polypropylene forming the inner surface of the packaging and laminated with a bioriented polypropylene film (22) forming the outer surface of the packaging.

[0021] Once having sufficiently described the nature of the invention, as well as a preferred exemplary embodiment, it is now hereby stated to the opportune effects that the materials, shape, size and arrangement of the elements having been described above will be modifiable in as much as that doesn't entail an alteration of the essential features of the invention which are being claimed as follows.

Claims

1. A packaging being of the type of those comprising a tubular body (1) being formed from a sheet (2) and provided at each of the sides (11) with a respective longitudinally oriented gusset fold (12) for its folding into a flat arrangement and with opening and base sealing means (3, 4); **characterised in that** the tubular body (1) is inferiorly provided with a transversal fold (15) being at a distance from its lower end which is sensibly equal to one-half of the width of the sides (11) and in said tubular body (1) defining a lower portion (16) being arranged in a laid down arrangement on a first larger face (13) of the packaging and through sealing means (3) having its end fixed to said first larger face (13), said lower portion (16) in the spread out position of the packaging and together with a portion of equal length of the second larger face (14) of the packaging defining a flat base (17) of rectangular contour wherein the sealing means (3) are arranged at one of the ends of the aforementioned flat base (17).

2. A packaging as per claim 1, **characterised in that** the sealing means (3) establishing the fixing between the end of the lower portion of the tubular body (1) and the first larger face (13) of the packaging define at least one sealing line being oriented in a direction being sensibly parallel to the end of said lower portion (16) and are defined by sewing, welding or gluing.

3. A packaging as per any of the foregoing claims, **characterised in that** the tubular body (1) is made up by a multilayer sheet (2) comprising a layer of woven raffia (21) of polypropylene being laminated with bioriented polypropylene film (22).

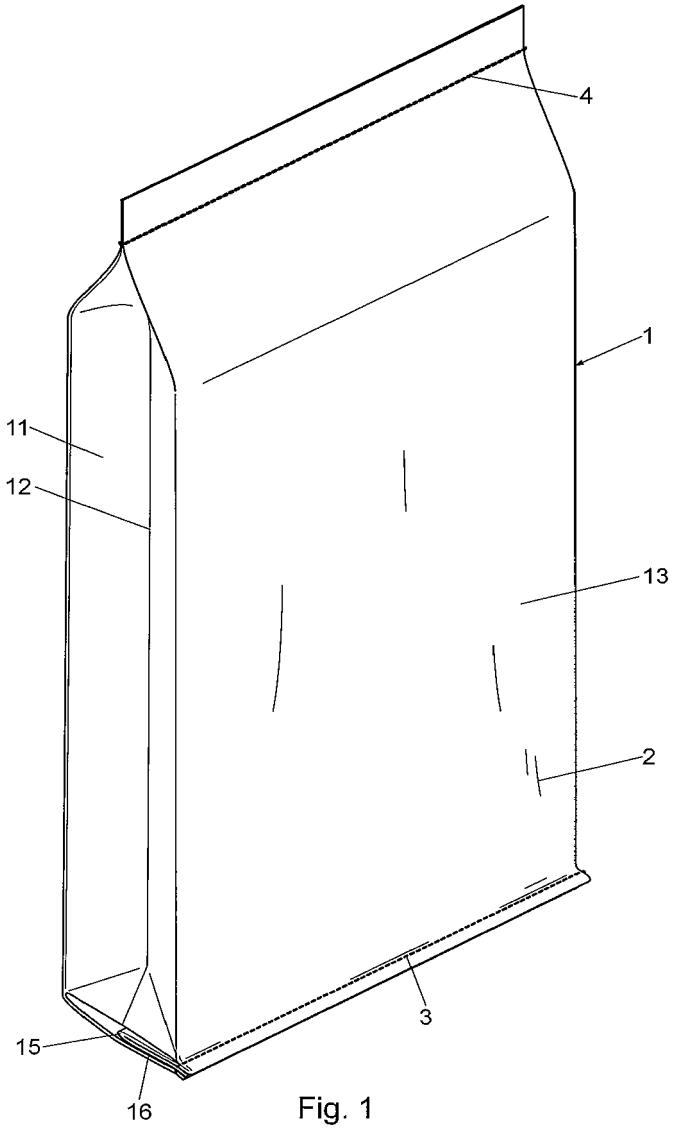


Fig. 1

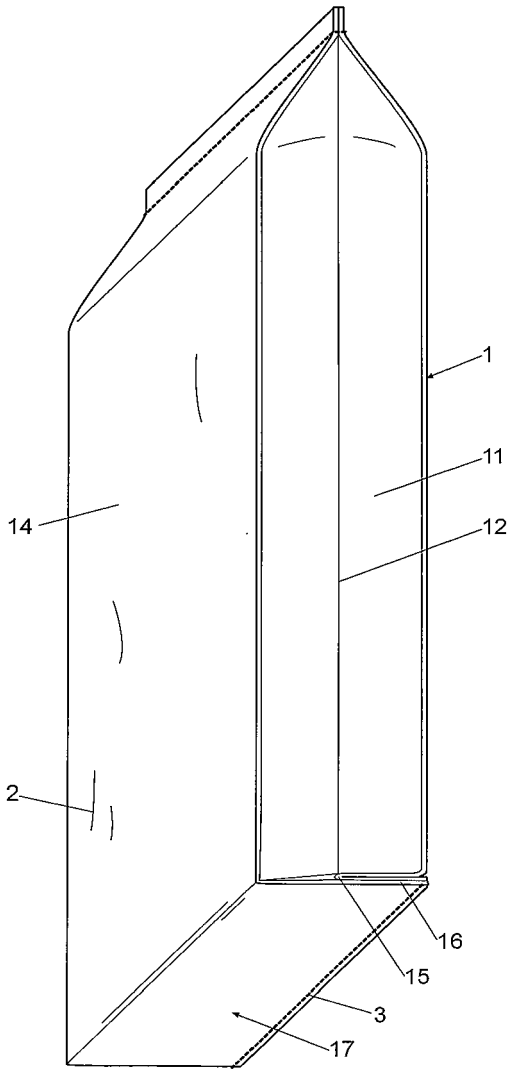


Fig. 2

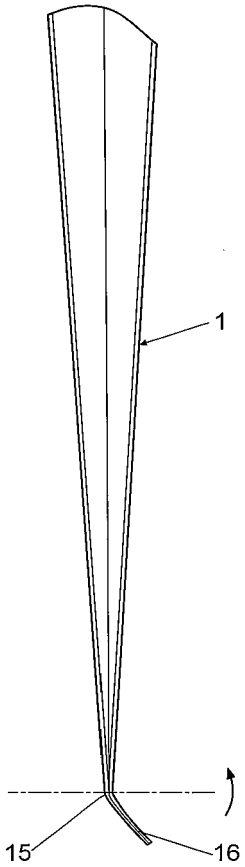


Fig. 3

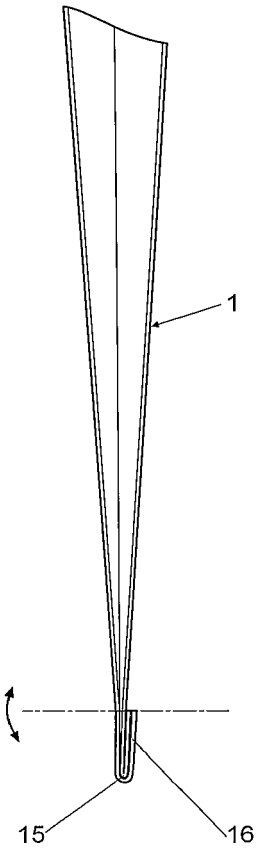


Fig. 4

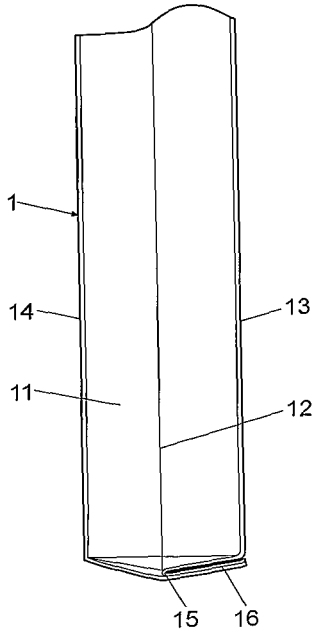


Fig. 5

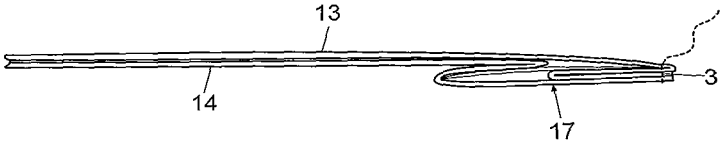


Fig. 6

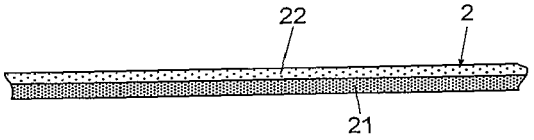


Fig. 7

Europäisches Patentamt
European Patent Office
Office européen des brevets

EUROPEAN SEARCH REPORT

Application Number
EP 10 00 4768

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X Y	DE 39 26 728 A1 (KODRON RUDOLF S DIPL ING [DE]) 21 February 1991 (1991-02-21) * column 2, line 23 - line 26; figure 2 *	1-3 1-3	INV. B65D33/00
Y	EP 1 323 639 A1 (AUTOBAR FLEXIBLE FRANCE [FR]) 2 July 2003 (2003-07-02) * column 2, line 47 - column 3, line 35; figures 1-5 *	1-3	
A	WO 88/09752 A1 (YHTYNEET PAPERITEHTAAT OY [FI]) 15 December 1988 (1988-12-15) * page 2, line 17 - page 3, line 9 *	1-3	

TECHNICAL FIELDS SEARCHED (IPC)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	9 August 2010	Derrien, Yannick

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 10 00 4768

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-08-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 3926728 A1	21-02-1991	NONE	
EP 1323639 A1	02-07-2003	FR 2833928 A1	27-06-2003
WO 8809752 A1	15-12-1988	DK 40589 A	30-01-1989
		EP 0316430 A1	24-05-1989
		ES 2009252 A6	16-09-1989
		FI 872500 A	04-12-1988
		JP 2500433 T	15-02-1990

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82