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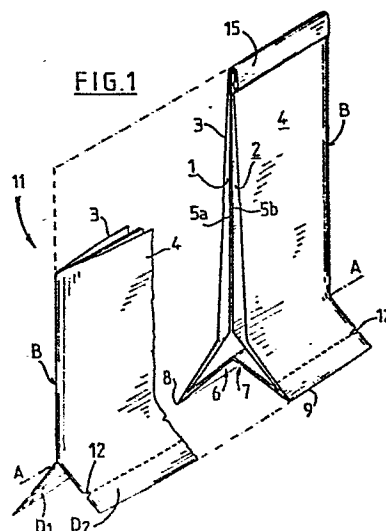
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54 Double bag with separate openings and process for its production.

57 The present invention relates to a double pouch or sack of the kind normally utilized to package powdered or liquid food products. In particular, the present invention relates to an integral pouch or sack with two distinct interior compartments, (1, 2), each such compartment having an opening element (D1, D2) which may be separately opened.



"DOUBLE BAG WITH SEPARATE OPENINGS AND PROCESS  
FOR ITS PRODUCTION"

The present invention is concerned with a double bag or sack, that is, one with two compartments, each of which is provided with a separate closure, destined to contain powdered or liquid food products.

5 It is known that in this particular field, culinary preparations are presented in the dry, powdered state, so that they can be prepared rapidly by heating or cooking in an appropriate liquid, such as water. In certain cases, the preparation includes two different products,  
10 destined to be prepared in two successive stages, contained in two compartments of a double bag, but which has only one opening that operates on the two compartments simultaneously. A particular result of this is that the entire product must be consumed immediately without the  
15 possibility of storing one of the constituents separately.

With this type of double bag, it is not possible to use two doses of the same product or of the same variety at different times, while maintaining the second dose under the storage conditions that existed before the opening of  
20 the first compartment.

The purpose of the present invention is to remedy the above disadvantages by furnishing a double bag, each compartment of which has an individual closing device, characterized by a compact form, and easy and economical  
25 manufacture and filling.

A double bag, according to the invention, of the type having two exterior walls separated by an interior wall that defines the two distinct compartments, all the walls being made of thin films, sealed by their edges, is  
30 constituted by a first sheet, folded back onto itself and

forming the exterior walls bounded by a common folded ridge, the fold containing two lips inside which a second sheet is inserted that forms the internal wall, sealed along two sealing lines parallel to the said ridge, the  
5    respective zones formed with respect to the ridge and beyond each sealing line, constituting the respective opening elements of each of the two compartments.

According to a first embodiment, the exterior walls have two supplementary folds symmetrical with respect to  
10   the folded ridge, the respective zones in-between the sealing line and the limit of each supplementary fold constituting the opening element.

According to a second embodiment, a first zone, forming the opening element of a compartment, is comprised  
15   between the two sealing lines and a second zone, forming the opening of the other compartment and arranged below the sealing line, which is the farthest removed from the folded ridge.

Other characteristics and advantages of the  
20   invention will follow more clearly from the description that is given below of its possible forms of embodiment, made in consideration of the attached drawings, on which:

Figure 1 represents a perspective schematic view, partially cut, of the first embodiment of a double bag  
25   according to the invention;

Figures 2 and 3 represent details of the embodiment according to Figure 1;

Figure 4 represents a perspective schematic view, partially cut, of the second embodiment of a double bag  
30   according to the invention; and

Figure 5 represents a detail of the embodiment of Figure 4.

On these drawings, the same references designate the same elements.

Referring to Figures 1 and 2, a double bag according to the invention consists of two compartments 1 and 2, delimited by the respective external walls 3 and 4 and by an internal wall 5 which is common to the two compartments. The external walls 3 and 4 are in fact constituted by a single sheet folded according to a folded ridge A-A. The folding forms two lips inside of which the double interior seal, 5a, 5b, is sealed along two sealing lines 6 and 7, which are parallel to ridge A-A and are arranged on the two sides of this ridge. According to this first mode of embodiment, the bag also has two other supplementary folds 8 and 9, at least one of which inserts a corresponding fold 10 of interior wall 5. The bag of general reference 11 has, for example, a rectangular form, the edges B of the sheets which constitute it being glued or soldered together in a manner which is known in the art. Zones D1 and D2, which are respectively between sealing lines 6 and 7, and supplementary folded ridge 8, 9, constitute the individual opening elements of compartments 1 and 2, parallel to ridge A-A. For this purpose, one may equip zones D1 and D2 with precut matching notches 12.

Referring to Figure 3, if desired, one may realize the internal wall in the simple form 5, this latter also being included in supplementary fold 9.

Referring to Figures 4 and 5, and according to a second possible form of embodiment, a bag according to the invention has two compartments, 1 and 2, as before, defined by two external walls 3 and 4 of a single sheet folded along ridge A-A, and by an internal wall 5. The internal wall 5 is inserted inside the lips formed by the

fold along A-A and it is sealed along two parallel sealing lines 13 and 14, arranged on the same side with respect to ridge A-A. A first zone D3, forming the opening element of compartment 1 is comprised between the two sealing lines 13 and 14, while the second zone, D4, forming the opening elements of compartment 2, is arranged beyond the sealing line 14 which is the farthest removed from ridge A-A. Wall 5 is also sealed on edges B.

In order to manufacture a double bag according to the invention, one may place the single sheet forming the exterior walls onto a flat surface, followed by defining a folded ridge and carrying out the sealing of the sheet that forms the internal walls along the two lines. This is followed by folding as well as applying the supplementary folds according to the first mode of embodiment then sealing edges B which are perpendicular to the folded ridge. Under these conditions, the bottom of the bag is constituted by the opening elements D1-D2 or D3-D4 and one may proceed with filling the compartments. After filling, the side opposite to ridge A-A is sealed by any appropriate means, for example, by first folding the edge of the interior wall 5 and an edge of an exterior wall (3) onto the other exterior wall (4), along the cover flap 15.

The walls may be made of any suitable sheet-like material, for example, from paper made impermeable, metal-like paper, or metal or plastic materials. In the latter case, the sealing may be carried out by thermal welding.

It should be pointed out that when the bag is filled and sealed, it is more attractive when presented with the bottom constituted by the region of flap 15 in which case

the user merely has to cut separately one of the zones that form the opening element to obtain the product of one compartment while conserving the product of the other compartment under the best conditions.

5           Thus, after opening one or the other compartments, the present invention permits preservation of the product, contained in the compartment that remains closed, under the initial storage conditions up to the time when it will be used. Notably, in the case of culinary  
10 products, the invention permits guaranteed safe consumption with all the predictions inscribed on the packaging (composition, mode of use, storage conditions, labeling and marking), which maintains its integrity until the use of the product that it contains.

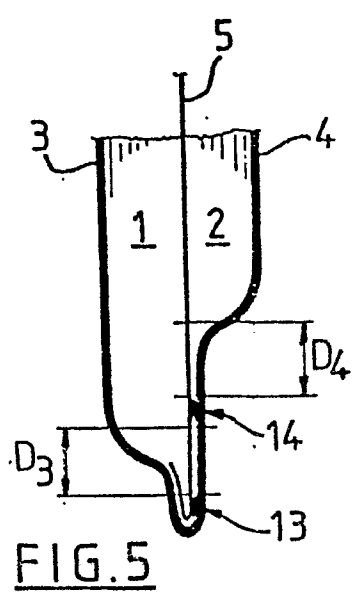
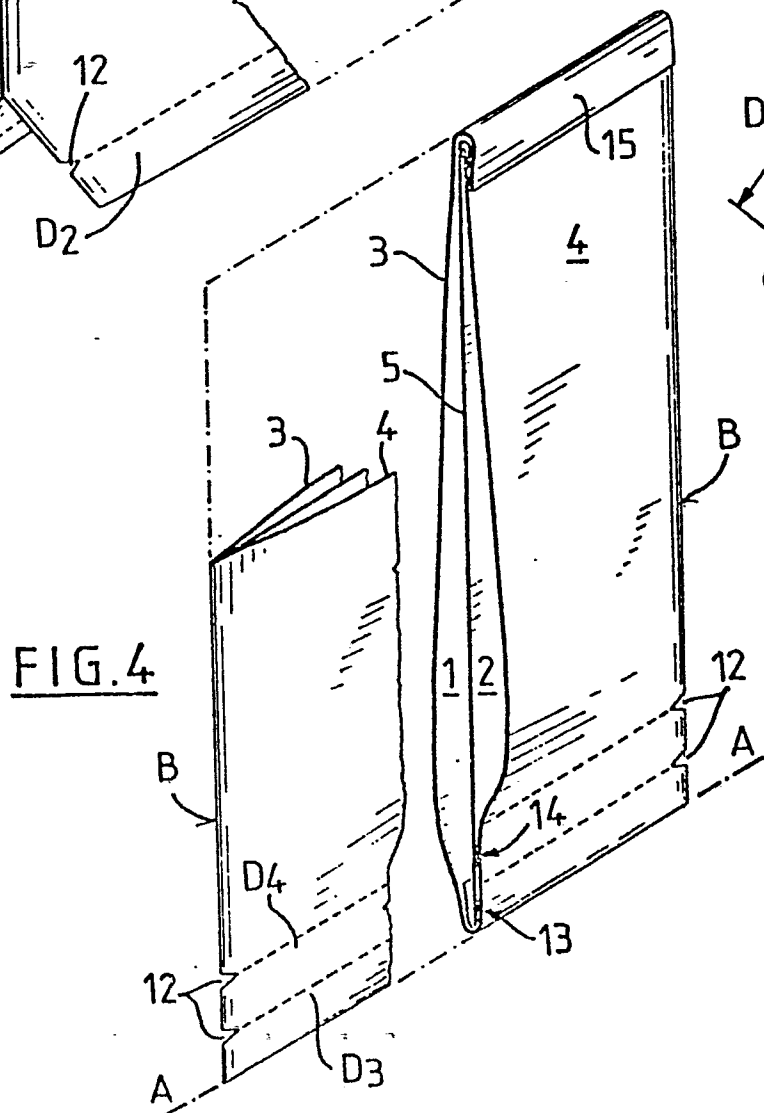
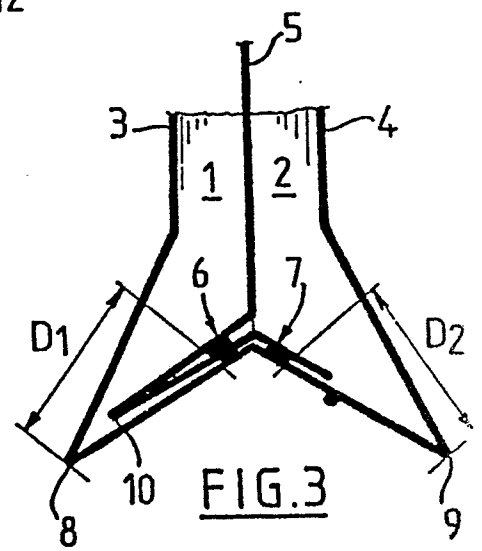
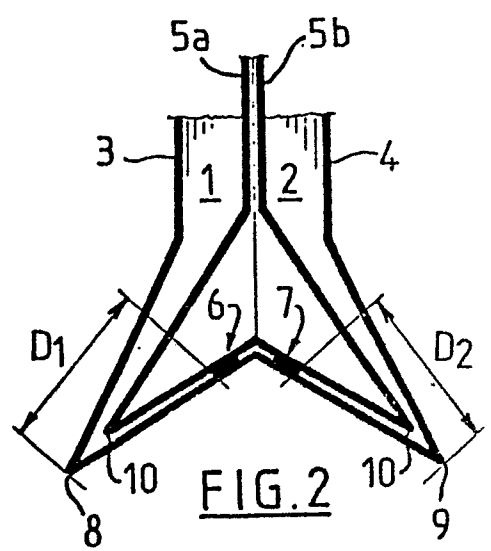
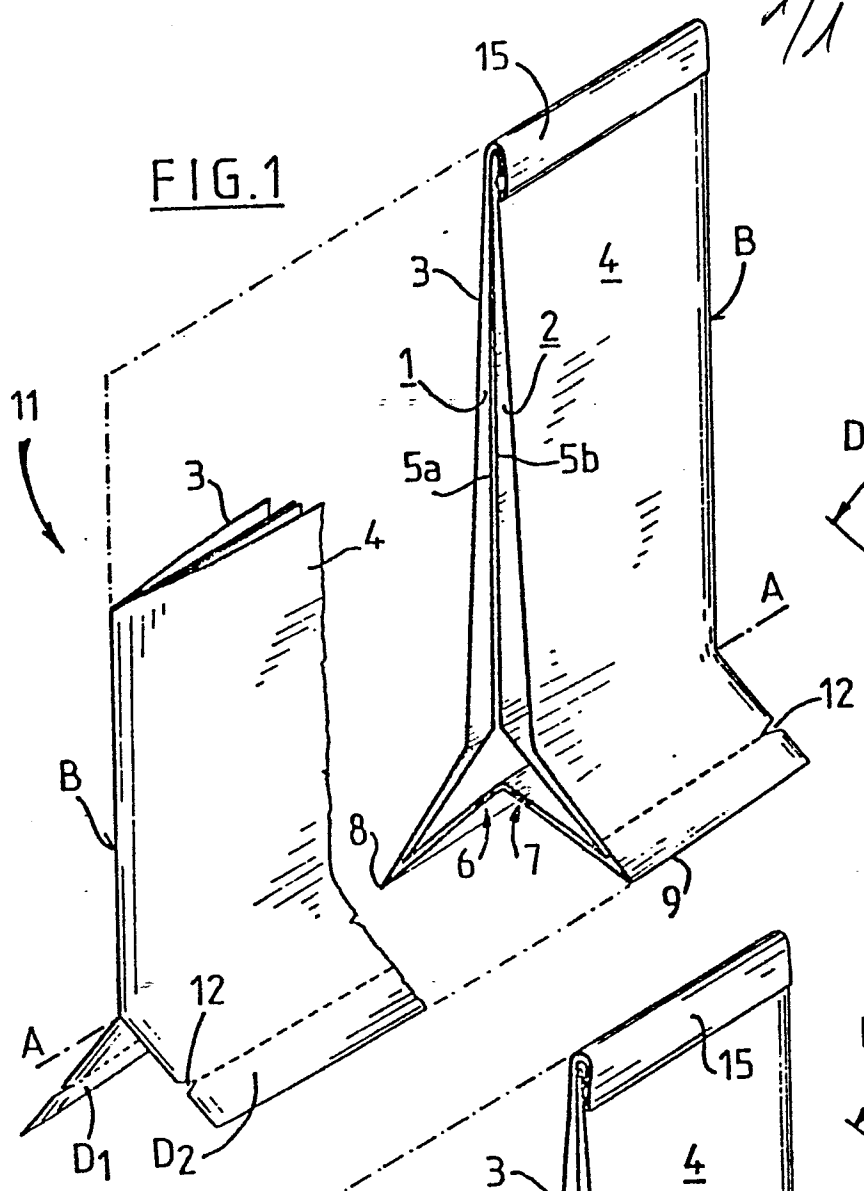
15           Naturally, the present invention is described and represented only for the purpose of explanation but it does not represent a limitation and one can make any useful modifications to it, notably in the range of equivalent techniques, without departing from the scope of  
20 the invention.

CLAIMS

1. Double bag with separate openings of the type having two exterior walls separated by an interior wall defining two distinct compartments, all the walls being made of thin films sealed together at their edges (B), characterized by the fact that it is constituted by a first sheet folded onto itself and forming the exterior walls limited by a common folded ridge (A-A), the ridge having two lips inside which a second sheet is inserted that forms the interior wall (5, 5a-5b) sealed along two sealing lines (6,7-13,14), which are parallel to the said ridge, the respective zones formed with respect to the ridge and beyond each sealing line constituting the respective opening elements (D1,D2-D3, D4) of each of the two compartments.
2. Bag according to Claim 1, characterized by the fact that the exterior walls have two supplementary folds symmetrically with respect to the folded ridge, the respective zones between the sealing line and the limit of each supplementary fold constituting the opening elements.
3. Bag according to Claim 2, characterized by the fact that the interior wall is single or double (5a, 5b).
4. Bag according to Claim 1, characterized by the fact that a first zone forming the opening element of a compartment is arranged between the two sealing lines and the second zone, forming the opening of the other compartment, is arranged beyond the sealing line that is the farthest removed from the folded ridge.

5. Process of manufacture of a bag according to any of Claims 1 to 4, characterized by the fact that a single sheet forming the exterior walls is placed on a flat surface, a folded ridge is defined, the sheet forming the interior wall is sealed along two sealing lines, the fold is made and then the sheets are sealed along edges which are perpendicular to the said folded ridge.
6. Bag according to claim 1 and substantially as hereinbefore described.
7. Bag according to claim 1 and substantially as hereinbefore described with reference to the accompanying drawings.







European Patent  
Office

# EUROPEAN SEARCH REPORT

0063013

Application number

EP 82 30 1740

| 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. <sup>3</sup> )                    |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FR-A-1 252 916 (GONON)<br>* page 1, left-hand column, paragraph 2; page 1, right-hand column, paragraph 3; figures 1 to 4 * | 1                                              | B 65 D 30/22                                                                  |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ---<br>US-A-2 416 816 (CAMPAGNANO)<br>* column 2, line 16 to column 3, line 30; figures 1,13,14,16 *                        | 1,2,3                                          |                                                                               |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ---<br>GB-A- 494 010 (HAAS)<br>* page 2, lines 73 to 93; figures 1,2 *                                                      | 1,3                                            |                                                                               |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ---<br>US-A-3 685 645 (KAWAGUCHI)<br>* column 2, lines 32 to 65; figures 1 to 3 *                                           | 1                                              |                                                                               |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ---<br>GB-A-2 030 109 (REXHAM)<br>* page 2, lines 2 to 121; figures 1,2 *                                                   | 1,3,5                                          | TECHNICAL FIELDS<br>SEARCHED (Int. Cl. <sup>3</sup> )<br><br>B 65 D<br>B 65 B |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                             |                                                |                                                                               |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                             | Date of completion of the search<br>12-07-1982 | Examiner<br>VANTOMME M.A.                                                     |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                                                                                                             |                                                |                                                                               |