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3,504,841

FOLDABLE PACKING BAG

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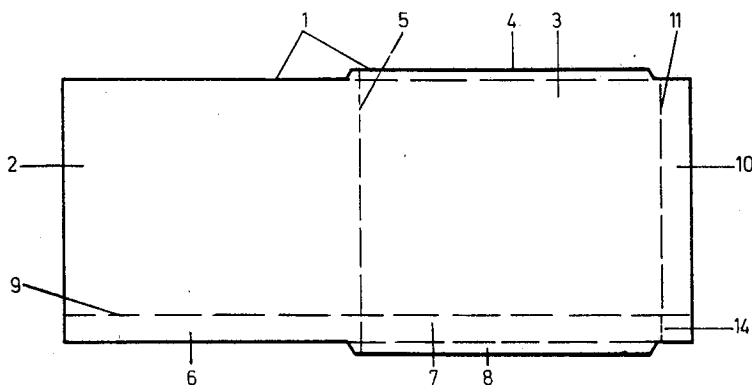


Fig. 1

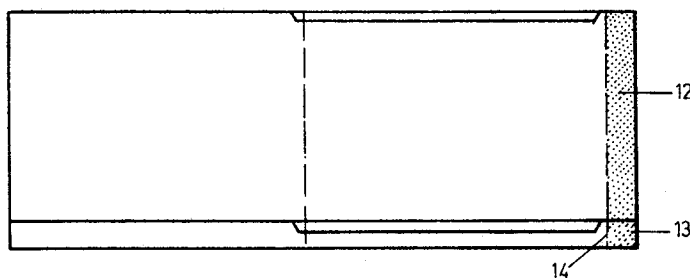


Fig. 2

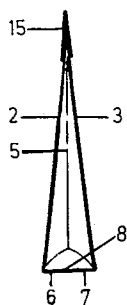


Fig. 4

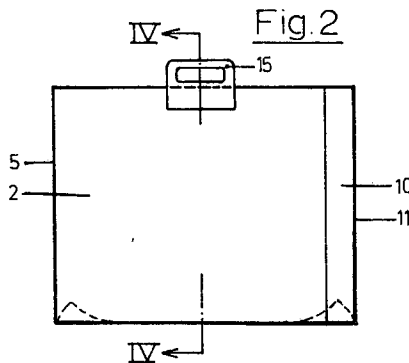


Fig. 3

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FOLDABLE PACKING BAG

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2 Claims

ABSTRACT OF THE DISCLOSURE

A foldable packing bag made of flexible material comprises two side walls interconnected along their top edges and along one pair of corresponding side edges. The opening left between the other pair of corresponding side edges may be closed by a closing flap attached to one of the side walls and adapted to adhere to the other side wall. The bag comprises a foldable bottom which consists of extensions of the two side walls at the lower ends thereof, which have been folded to the inside and adhered to each other along their free edges.

BACKGROUND OF THE INVENTION

French Patent 1,309,549 discloses a foldable packing bag made of paper or a similar flexible material, and intended to be used for packing textile goods, such as suits and the like. This bag has two flat side walls which are directly connected at their upper edges. At the lower edges, the side walls are interconnected by means of a foldable strip of material forming a substantially flat bottom when it is unfolded. The bag is closed at one of the lateral ends, and has an opening at its other lateral end. This opening may be closed by means of a closing flap attached to one of the side walls, which is provided with a self-adhering layer, and which may be folded back around the opening and stuck to the outer surface of the other side wall.

This known packing bag has the disadvantage that it is composed of a plurality of separate parts; in particular, the bottom of the bag and the lateral side wall remote from the opening consist of separate strips, whereby the manufacture of the bag is complicated and expensive.

The invention has the object to remove this disadvantage and to provide a packing bag of the above-mentioned kind, of which the construction is considerably simpler, so that it may be mechanically produced in an easy, rapid and nonexpensive way.

SUMMARY OF THE INVENTION

According to the invention the foldable bottom of the bag consists of extensions of the two side walls at the lower ends thereof, which have been folded to the inside and stuck to each other along the folding line.

Thus, the bottom of the bag is not made of a separate strip of material, but the material of the side walls is extended by several inches in excess of the required height, so that the two extensions, each integral with the associated side wall, may be folded to the inside and stuck together at their free edges.

In order that the edges of the extensions may be readily stuck together and that a good folding line may be obtained in the middle of the bottom, it is desirable that the extension of one side wall is somewhat longer than the extension of the other side wall, so that an excessive portion of this extension is obtained on one side. This excessive portion may be folded back with respect to the remaining portion of the same extension and stuck to the edge of the extension of the other side wall.

The production of the bag may be further simplified, if the closing flap is in integral with the side wall of which it forms an extension.

In order to facilitate the production of the bag, to avoid cut outs in the material, to facilitate the folding of the material and to prevent tearing, it is preferable that the folded extension of the side wall provided with the closing flap extends to the end of the closing flap. Upon application of the self-adhering layer required for closing the bag, the extension is then stuck together with the closing flap. This has the advantage that the bag is held closed to some extent before use. On the other hand, there is the disadvantage that the material of the extension intended to form one half of the bottom must be separated from the portion stuck to the closing flap in order to unfold the bottom when the bag is put into use. If the two portions of the extension have to be torn loose from each other, the material of the bag may be damaged; moreover, the tearing is not always easily done. For this reason, it is preferred to provide a vertical scoring line or perforation in the extension, so that the portion to be used for the formation of the bottom may be torn loose without difficulties from the portion stuck to the closing flap.

Instead of providing a scoring line or a perforation to facilitate the separation of the two portions of the extension, it would also be possible to make a cut in the material at the location in question. However, the material of the bag would be weakened thereby to a greater extent, so that the danger of damage during the production of the bag would increase.

Theoretically, it would be possible to avoid an adherence of the end portion of the extension to the closing flap by cutting out the square end portion of the extension, so that the same does not attain the end of the closing flap any more. However, such a cut out would complicate the preparation of the material and make it more difficult to guide the web of material through the machine, whereby the chance of tearing would increase. Experiments have shown that the above-described construction is preferable from the point of view of production.

The fact that the end portion of the extension adheres to the lower end of the closing flap provides the additional advantage that the lower corner of the closing flap is reinforced.

In connection with the above-mentioned constructive features it is possible and very useful for a simpler mechanical production to construct the bag in such manner that the two side walls, the two extensions forming the bottom and the closing flap are made of a single integral sheet of the material which is folded at the closed lateral end of the bag, after which the two halves of the sheet are stuck together directly at the upper edges and by means of the folded extensions at the lower edges.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of an integral sheet from which a bag according to the invention is made.

FIG. 2 shows the same sheet in a further phase of the production.

FIG. 3 is a side view of the bag in closed condition.

FIG. 4 is a cross-section taken on line IV—IV in FIG. 3.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIG. 1, the reference numeral 1 indicates an integral sheet of paper for the formation of the preferred embodiment of the packing bag. The several portions of this sheet constitute the elements of the bag in the following manner.

Portion 2 becomes the side wall of the bag visible in FIG. 3 and portion 3 becomes the other side wall. Portion

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3 is extended at the upper edge to form a strip 4. Upon production of the bag, the strip 4 is folded downwardly as shown in FIG. 2 and provided with an adhering layer, after which the upper edge of portion 2 is stuck to the strip 4 (the portions 2 and 3 being folded together along the folded line 5), so that the two side walls are directly interconnected at the upper edges.

Portion 6 is one of the halves of the foldable bottom of the bag and portion 7 is the other half. As appears from FIG. 1 portion 2 is provided at the bottom with a single extension 6 and portion 3 has a corresponding extension 7 and an additional extension 8. When folding the bag the extensions 6 and 7 are folded upwardly along the line 9 and the strip 8 is folded to the inside and provided with an adhesive layer as shown in FIG. 2. Thereafter, the upper edge of the extension 6 is stuck to the strip 8 (after portions 2 and 3 have been folded together along line 5), so that the two side walls are interconnected by a foldable strip of material forming a substantially flat bottom when unfolded as shown in FIG. 4.

It will be clear that the bag obtained in this manner is completely closed at one of the lateral ends, because the two side walls are integral at this end and only separated by the folding line 5.

However, at the other lateral end of the bag the side walls are only interconnected at the top and at the bottom so that a fully accessible opening is formed between the side walls.

To close this opening after a suit or a similar textile product has been put into the bag one of the side walls is provided with a lateral extension to be used as a closing flap. In the embodiment as shown, this closing flap is formed by portion 10 of the sheet 1 (FIG. 1), which is an extension of side wall 3. The closing flap is folded back along the folding line 11 when the bag is to be closed and stuck to the outer surface of side wall 2. The closed condition of the bag is shown in FIG. 3.

In order to facilitate the attachment of the closing flap 10 to side wall 2, a self-adhering layer 12 is applied to the closing flap 10. If desired, a similar layer may be applied to the outer surface of side wall 2.

During the production of the bag, the end portion 13 of strip 7, which extends up to the edge of flap 10, is stuck to the adjoining bottom part of flap 10 when the self-adhering layer 12 is applied. Thereby, the bag is kept closed to some extent as long as the bag is not in use. On the other hand, when the bag is put into use the bottom is prevented from unfolding, because the end portion 13 of strip 7 is attached to the lower portion of flap 10. It is, therefore, necessary to separate the part of strip 7 which is to be unfolded from the end portion 13 adhering to flap 10. In order to facilitate the separation, a vertical scoring line

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or perforation 14 has been provided at the end of the side walls, so that the two portions of strip 7 may be separated from each other without damaging or tearing the material of the bag.

In order to carry the bag, a handle 15 has been provided in the middle of the interconnected upper edges of side walls 2 and 3.

As long as the bag is not in use, the strips 6 and 7 constituting the bottom are folded together and the walls 2 and 3 lie against each other through a substantial portion of their surfaces. During use, the bag has a substantially triangular cross-section as appears from FIG. 4.

It will be clear that the bag according to the invention may be produced rapidly and cheaply in a very simple manner by means of an automatic mechanical process.

I claim:

1. A foldable packing bag made from a single sheet of flexible material, comprising two side walls having a predetermined height, and being interconnected along their top edges and foldably interconnected along one pair of corresponding side edges; a carrying handle centrally attached to the said interconnected top edges; and a closing flap attached to one of the said side walls, provided with a self-adhering layer, and adapted to be folded back and stuck to the outer surface of the other side wall to close the opening between the other pair of corresponding side edges of the said side walls; each of the said side walls being provided at its lower edge with an extension in excess of said predetermined height, said extensions being folded inwardly and interconnected along their free edges so as to form a foldable connecting strip convertible into a flat bottom by unfolding, the extension of one of the side walls being higher than the extension of the other side wall, the excessive portion of said first-mentioned extension being folded back and stuck to the free edge of said last-mentioned extension.

2. A foldable packing bag as claimed in claim 1 wherein the extension of the side wall to which said closing flap is attached extends to the end of said closing flap and is stuck to the same, a vertical weakening line being provided in said extension, along which the portion of this extension used to form the bottom of the bag may be separated from the portion adhering to the closing flap.

References Cited

FOREIGN PATENTS

257,137 4/1964 Netherlands.

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