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(12) # EUROPEAN PATENT APPLICATION

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(54) **Knapsack type bag with closing seal, in plastic or paper material.**

(57) This invention concerns a knapsack type bag with a closing seal, in plastic or paper material. Closing of this bag is automatically effected by pulling the string which enables the said bag to be gripped and more specifically placed on the shoulders like a knapsack.

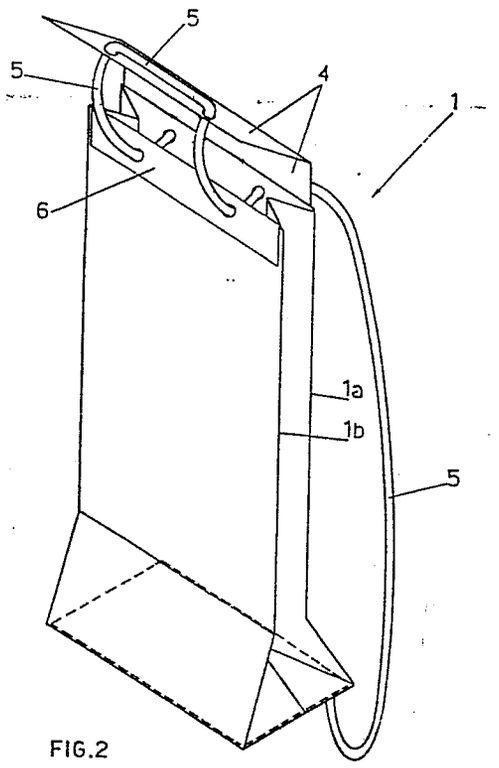

FIG.2

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Knapsack type bag with closing seal, in plastic or paper material.

This patent application for an industrial utility model, concerns a knapsack type bag with a closing seal, in plastic or paper material. Closing of this bag is automatically effected by pulling the string which enables the said bag to be gripped and more specifically placed on the shoulders like a knapsack.

The model, according to the invention, is absolutely brand new and can be included in the range of plastic or paper bags in which purchased goods are normally consigned nowadays. It is manufactured, following current production techniques, from a tubular sheet, closed at one end underneath a supporting base, which actually makes up the bearing structure of the bag, which is provided with suitable closing and/or gripping means at its open edges.

In certain models of so-called drawstring bags, the closing and gripping means are both made up of a string which is passed through holes especially made along the upper edge of the bag, which closes and curls up when the said string is pulled.

This string is long enough for the ends to be externally hooked to the bag at a particular fixing point placed on the outside of the bag base. In this case, the bag can be carried on the shoulder.

The aim of this invention is to create a new bag model,

characterized in that the said closing and support string is hooked to the base, in such a way that it can act as a double strap allowing the bag to be placed on the shoulders like a kind of knapsack. A closing seal is also provided which is automatically closed at the bag's open edges, each time the said string is pulled by the user and under the weight of the full bag itself.

According to this model, the bag, as far as its shape is concerned, is one of the type of shopping bags which are conventionally manufactured like normal bags, in which the base is obtained by folding a tubular sheet longitudinally, in two different dihedrals transversally opposite each other which both start at the same central plane, and by welding the end of the tubular sheet along a diametrical line. In this way the base comes to an end at a sharp edge and if the bag is empty it has a squashed shape, which when full takes on the form of a parallelepiped with a quadrangular base.

For the first time ever, this invention requires that a seal be applied at the opening of the bag, which goes over the top of the two opening edges of the bag and clamps them one against the other under pressure each time a string is pulled, the ends of which are knotted externally at the base of the bag at two distinct, well-spaced points, after first being threaded through three pairs of holes made for this very purpose on the above-mentioned closing seal and on the two open edges of the bag.

For further clarity of explanation, the description of the invention continues with reference to the attached drawings, reproduced for illustrative and not restrictive purposes, in which:

- Figure 1 is an axonometric schematic representation of the bag according to the invention, seen from one side;

- Figure 2 is an axonometric schematic representation of the bag according to the invention, seen from the opposite side to Fig. 1;

- Figure 3 is an axonometric schematic representation of another preferred embodiment of the bag, according to the invention, seen from one side;

- Figure 4 is an axonometric, schematic representation of the version in Figure 3, seen from the opposite side to Figure 3.

With reference to figures 1 and 2, it can be noted that the knapsack type bag (1), in its preferred form of embodiment, is made up of a single sheet (2), in plastic or paper material, preferably already tubular, internally provided with a reinforcement sheet (3) at its base, and with a closing seal (4) at the opening which is externally glued to the top edge of one of the sides (1a) of the bag (1) and folded over and above the top edge of the other side (1b) beside and opposite the first side.

In the upper part of the bag, pairs of corresponding through holes are made into which a string (5) is threaded. The ends of this string are knotted at two distinct and well-spaced points at the base of the side (1a) at which point two through holes are made which are crossed by the two ends of the string (5). These are then made to pass through corresponding holes provided on the support base (3) and on the sheet (2) which is folded and glued underneath the base (3).

The string (5) is also threaded through the closing seal

(4), the flap of which has two holes on it, with identical center distance and arrangement to those along the top edges of the sides (1a) and (1b) of the bag (1), so that when the string (5) is pulled the closing seal is automatically shut against the outside of the top edge of the side (1b) which is squashed together with the closing seal, along the top edge of side (1a).

On the attached drawings, number (6) shows normal support strips which are usually applied along the open edges of the bag so as to make it more difficult for the sheet (2) to be torn where the holes are for the threading through of the string (5).

In figures 3 and 4, a simplified version of the model according to the invention is represented, using the same axonometric views and the same reference numbers, in which the closing seal (4) has been eliminated, while maintaining the knapsack type arrangement of the bag which is a characteristic of the model in question.

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Claims

1) Knapsack type bag, with closing seal, in plastic or paper material, the base of which is obtained by folding a tubular sheet (2) longitudinally, according to two transversally opposite dihedrals which both start on the same central plane and by welding the end of the tubular sheet along a diametrical line. Said bag is characterized in that it has a string (5) the ends of which are knotted at two distinct, well-spaced points at the base of one side (1a) of the bag (1) at which there are through holes also on the support base (3) with which the bottom of the bag is traditionally reinforced. The abovementioned string (5) is threaded through two pairs of corresponding holes, each pair being made along the top edge of the two sides (1a) and (1b) of the bag (1) which are beside and opposite each other, so that when the string (5) is pulled the bag (1) is automatically closed, by means of the fact that the top edges of the said sides (1a) and (1b) are brought together and shut.

2) Knapsack type bag with closing seal, in plastic or paper material, according to the previous claim, characterised in that it has a closing seal (4) applied on the outside of the top edge of one side (1a) of the bag (1) and folded over and above the other top edge of the other side (1b) of the bag (1). On the flap of this closing seal (4), there are two holes with identical center distance and arrangement to those along the two open edges of the bag (1) so that the string (5) can also be threaded through the said seal, which is automatical-

ly closed and squashed against the outside of the top edge of the side (1b) as soon as the string (5) is pulled.

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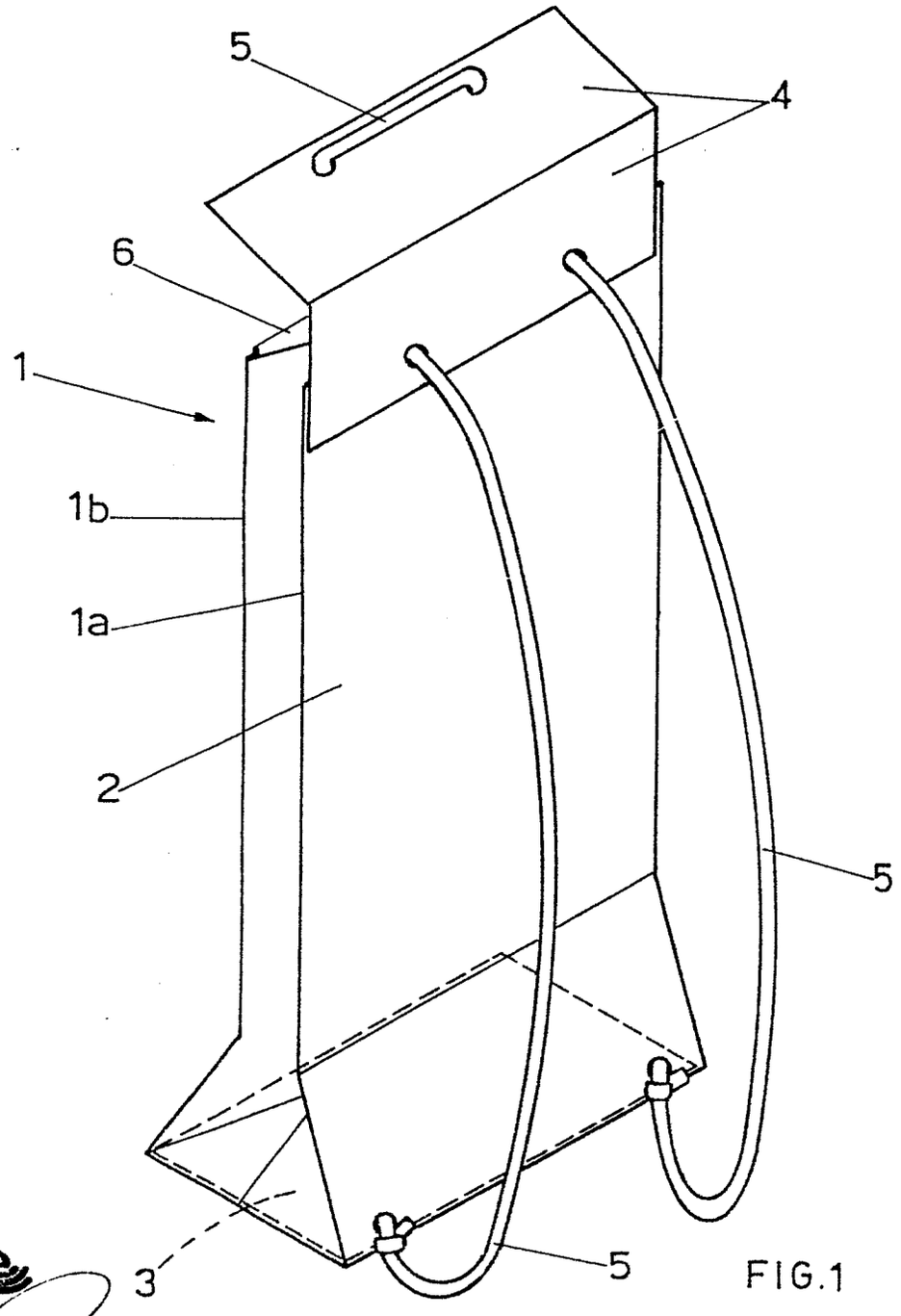

FIG.1

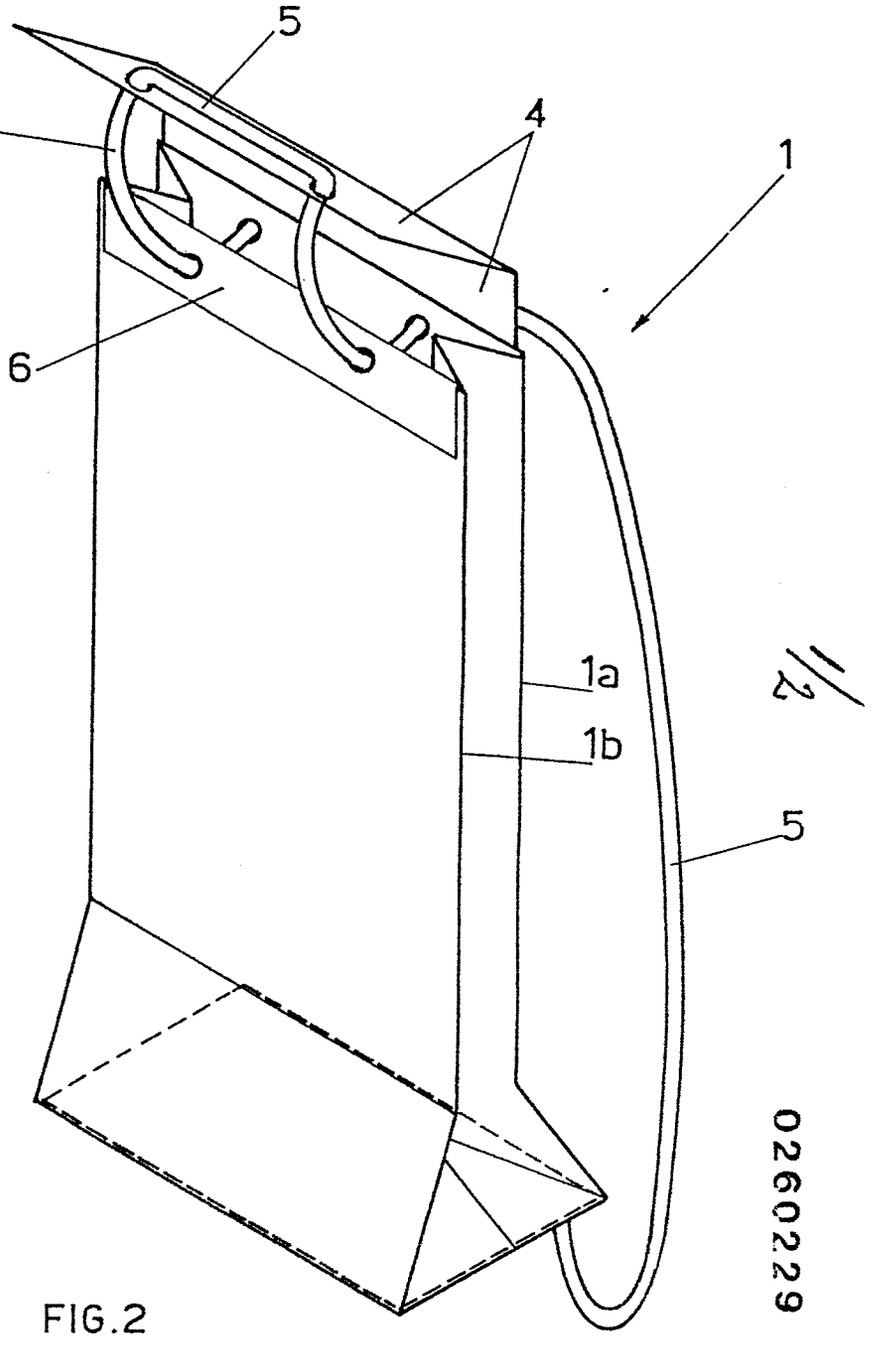

FIG.2

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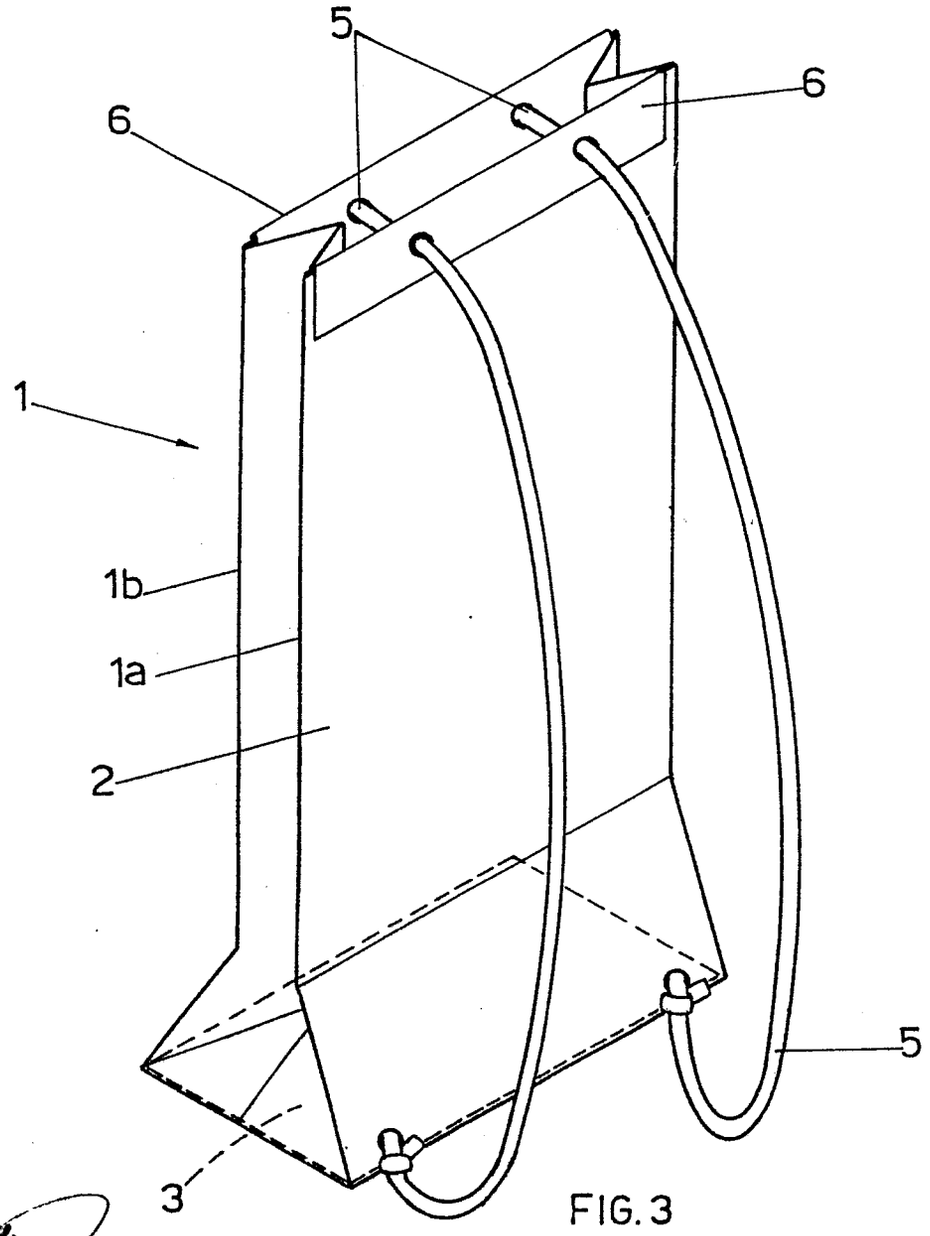

FIG. 3

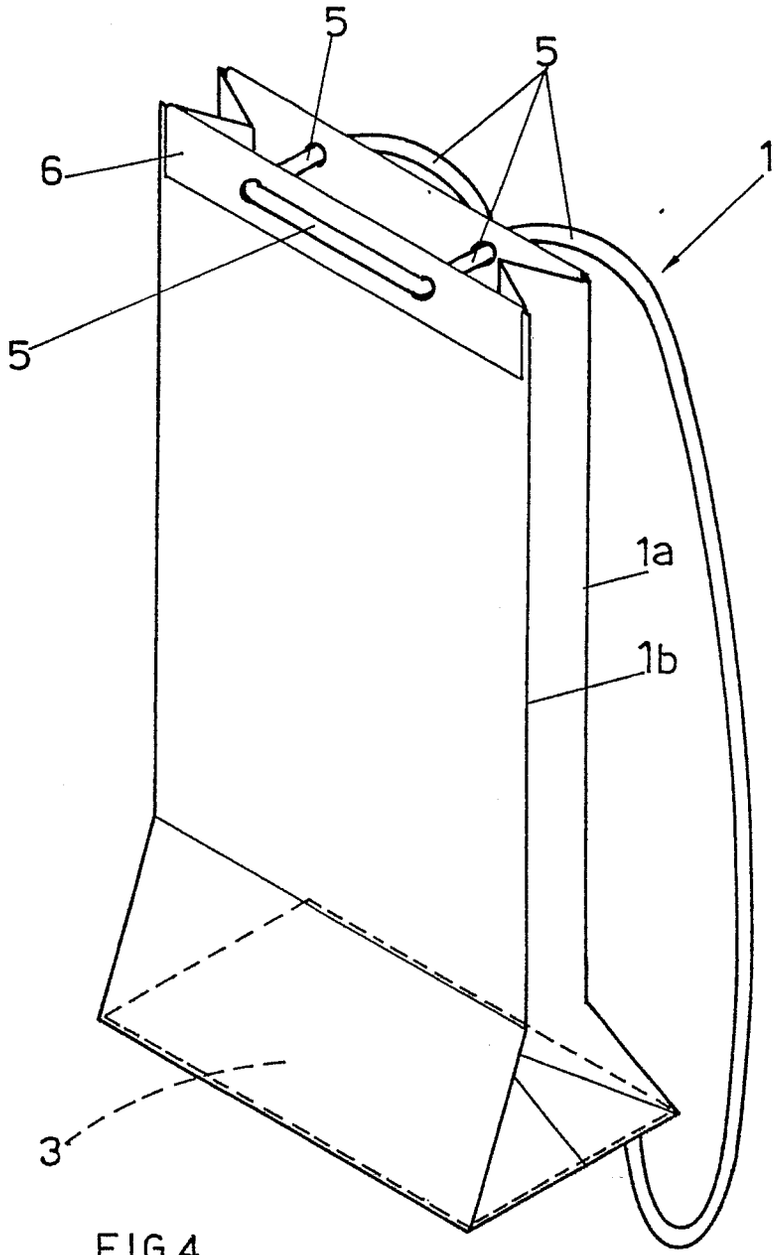

FIG. 4

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