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- (21) Application No. 4742/76
- (22) Filed 6 Feb. 1976
- (23) Complete Specification filed 4 Feb. 1977
- (44) Complete Specification published 1 Oct. 1980
- (51) INT. CL.³ B65D 33/08
- (52) Index at acceptance
B8K 2G1 2K3 2K4 2L 2X2 H
B5D 1B 4A 4C 4E 4N 8
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(54) IMPROVEMENTS IN OR RELATING TO
CARRIER BAGS

(71) I, GERT OESTERGAARD, trading as VEJLE PLASTIC, of N. Finsensvej, 7100 Vejle, Denmark, of Danish nationality, do hereby declare the invention for which I 5 pray that a patent may be granted to me and the method by which it is to be performed to be particularly described in and by the following statement:—

This invention relates to a carrier bag 10 made of sheet material provided with or for an article or article group which has a substantially planar top side, the bag correspondingly having a top side portion to closely cover the article top side and provided with carrier handle means at a central 15 area thereof.

Sales packings of plastics sheet material for substantially rectangular box-shaped articles or groups of articles such as paper 20 rolls or children's nappies, should appear not as slack carrier bags, but as substantially rectangular box-shaped tight-fitting packings having at their top side a carrier handle making the inner bag hang practically 25 vertically when it is carried. Conventionally this is obtained by filling the articles into a carrier bag like packing member through an open bottom portion thereof, the bag sides being welded together along 30 a cross line just underneath the handle holes, whereafter the bottom is closed by welding or otherwise. In the filled packing the said weld line will extend along a middle line of the flat top side of the articles, and from 35 this line projects upwardly a pair of juxtaposed sheet flaps in which said handle holes are provided. These flaps constitute a flabby appendage to the packing and are from several points of view, not very attractive. 40

In connection with cartons special handle members have been developed which are securable to a carton side being the top side when the carton is carried, but this is 45 an expensive solution and is not well suited

for use with plastics sheet packings.

This invention seeks to provide a carrier bag of the type referred to in the opening paragraph above which is well suited to appear as a substantially rectangular box- 50 shaped packing having carrier handle means of a simple and inexpensive design.

According to the invention there is provided a carrier bag made of flexible sheet material provided with or for use with an 55 article or article group having a substantially planar top side, the carrier bag having side walls which are spaced in use and a top side portion which in use extends transversely between said side walls, to over- 60 lie the article or group of articles, carrier handle means at a central area of said top side portion, said carrier handle means being provided by a strip portion of said top side portion formed between two substantially 65 parallel spaced recesses therein, wherein, in use, said central area which includes said strip portion, extends transversely of the side walls and overlies the article or group of articles. 70

With this construction there is no need to use extra material for the carrier handle, which is simply a part of the top side material itself, being grippable by putting the 75 finger tips through one of the said recesses and out through the other. It is preferred to reinforce the handle area by a reinforcing label whereby the sheet material may remain as thin as otherwise reasonable.

The handle being provided in this easy 80 manner involves new possibilities for the design of the packing, partly because additional handles may easily be provided at more sides of the packing and partly — 85 and mainly — because the handle is provided not in a loose flap but in a portion participating in the wrapping of the articles. Thus, the handle may be provided in a flap portion operable to close a filling opening 90 in the packing member, whereby this may

be designed as a bag member fillable through the same opening which is later used for taking out the articles from the packing. Of special advantage in this respect is the use of an adhesive for closing the flap over the opening; this is an easy and convenient closing method, and the closing flap with the handle may be fixed to the opposite bag side sufficiently safely to make the packing portable without the carrying pull in the handle causing the closing flap to open. In this manner is obtained a carrier bag of simple design which is capable of surrounding the articles in a tight manner and is easy to fill, close and open, and which has, in a logical manner its carrier handle provided on the closing flap portion.

As a starting member for the carrier bag may be used a flat bag having the closing flap portion extending upwardly from one of the bagsides and having a line or zone of adhesive, covered by a removable cover strip, mounted across the inner side of the closing flap portion. When the cover strip is not removed until the bag has been filled, just before it is closed the adhesive will not cause any troubles in connection with the handling of the flat bags or with the filling operation.

An embodiment of the invention will now be described by way of example, with reference to the accompanying drawing, in which:

Fig. 1 is a schematic perspective view illustrating the production of carrier bags according to the invention, while

Figs. 2-4 are perspective views of the filled bag illustrating the closing thereof.

Fig. 1 shows a part of a plastics bag production line in which a double plastics sheet length 2 having a double edge i.e. gunetted fold 4 is moved in the direction of the arrow shown. At the open edge of the length the upper layer of the length projects by a portion 6 beyond the edge of the lower sheet layer, and to the underside of this portion 5 is successively applied an adhering tape 8 passing from a supply reel (not shown) past an application station 10 for adhesive (hot melt). Alternatively the adhesive may be applied direct to the sheet portion 6 and then be covered by the tape, but the relatively thick tape is better suited to receive the hot melt without being damaged. The cover tape 8 is so prepared that later on it may be removed while leaving the adhesive on the sheet material.

In a following station 14 the top side of the sheet length is provided with labels 18 of a reinforcing sheet material, preferably of plastics, which is glued or welded to the sheet surface and mounted with constant mutual spacing along the sheet length, the labels 18 e.g. being cut from a continuous

sheet strip 16. Then the sheet length 2 is advanced through a punching station 20 in which the top layer of the folded length is provided with two elongate parallel recesses 22 in the area portions covered by the reinforcing labels 18, and thereafter, in a manner not shown, there is cut a V-shaped notch 24 in the free edge side of the sheet length, and between the bottom of this notch and the opposite folded side edge of the sheet length, midway between the labels 16, is provided a welding and cutting line 26, whereby separate bag members 28 are consecutively separated from the front end of the sheet length 2. Each bag member 28 has at one side a projecting top flap 30 and at the other side a similar flap 32 including the recesses 22 and extended by the outer sheet portion 6.

One such bag member 28 is shown in Figs. 2-4 in a condition filled with goods of substantially rectangular box-shaped form to be packed in the bag. The goods 34, are easily filled into the bag through the open top end thereof (through the actual filling may of course take place with the bag member in a lying or upside-down position) and the cover tape 8 is easily pulled away from the line of adhesive, designated 36. The goods are filled up to a predetermined height in the bag (or rather the bag is designed to that specific height). For closing the package the flap portion 30 is first folded over the top side of the goods 34 (fig. 3) and thereafter the flap portion 32 is folded likewise, its outer end portion 6 further being folded down along the vertical side of the packing and being pressed against this side of the packing, whereby the line of adhesive 36 will stick to the side of the packing so as to hold the folded portion 32, 6 closed against the remainder of the packing (fig. 4).

The slots or recesses 22 in the top portion 32 are placed so as to be located approximately at the middle of the top portion in the closed condition of the packing (Fig. 4), and it will be readily understood that the strip portion 38 between the slots will be engageable as a handle strap for carrying the packing. For the forming of the handle strap, of course, it is important to provide the cut lines defining the strap, but it is not strictly necessary to punch away the material as in the recesses 22.

For obtaining a neatly closable packing it seems preferably to let the bottom of the V-notches 24 be located at a level not substantially below the handle area, but level with the handle strap 38. The adhesive may bind so hard that it is difficult to open the bag, and it may be preferable to open it by cutting through the portion 6 above the adhering line or zone.

WHAT I CLAIM IS:

1. A carrier bag made of flexible sheet material provided with or for use with an article or article group having a substantially planar top side, the carrier bag having side walls which are spaced in use and a top side portion which in use extends transversely between said side walls to overlie the article or group of articles, carrier handle means at a central area of said top side portion, said carrier handle means being provided by a strip portion of said top side portion formed between two substantially parallel, spaced recesses therein, wherein, in use, said central area which includes said strip portion, extends transversely of the side walls and overlies the article or group of articles.
2. A carrier bag according to Claim 1, in which the recessed area of the top side portion is reinforced by a sheet label secured thereto.
3. A carrier bag according to Claim 1 or Claim 2, in which said top side portion comprises a closing flap having an extended end portion which is folded down or which is arranged to be folded down along a side

wall of the carrier bag and secured or securable thereto by means of adhesive present on the inside of said extended end portion in a zone thereacross.

4. A carrier bag according to Claim 3, in which the sheet material is a plastics sheet material and wherein the adhesive is covered by a removable cover strip.

5. A carrier bag according to Claim 4, which is flat prior to use, in which each of the upper corner portions of the flat bag is cut off along an inclined line from a point of the side edge substantially level with said carrier strip portion.

6. A carrier bag made of flexible sheet material, substantially as herein described with reference to and as shown in the accompanying drawings.

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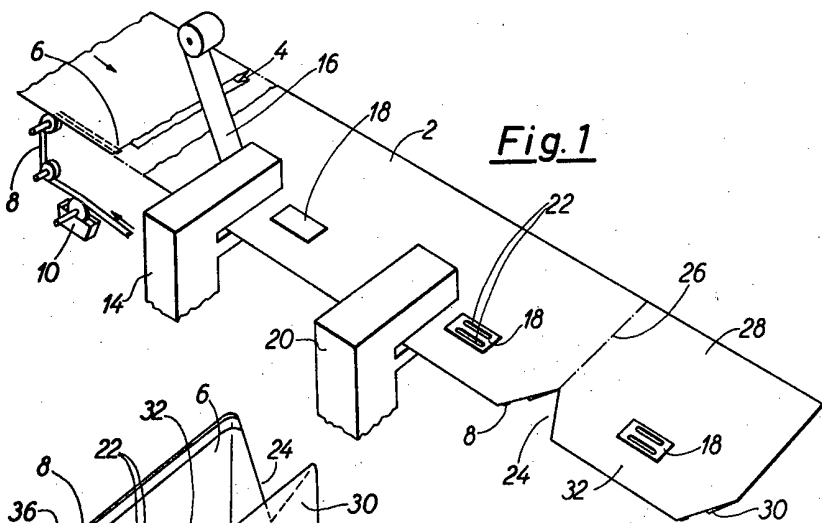


Fig. 1

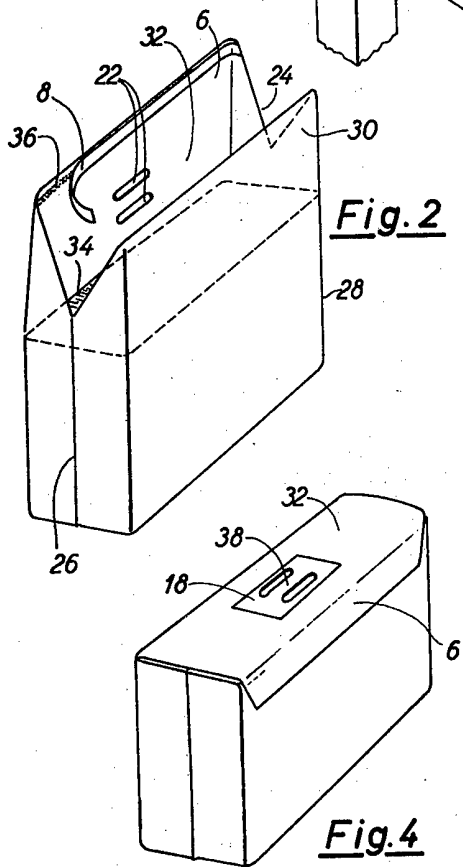


Fig. 2

Fig. 4

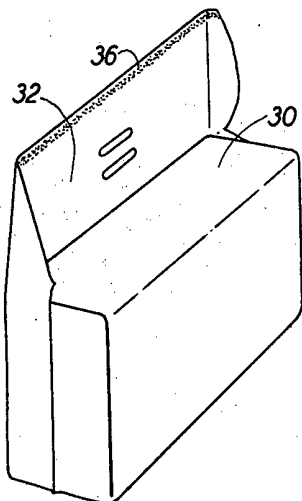


Fig. 3