Oct. 21, 1952 J. G. BARNES 2,614,349

DETACHABLE-LABEL BAG

Filed June 17, 1948 2 SHEETS—SHEET 1

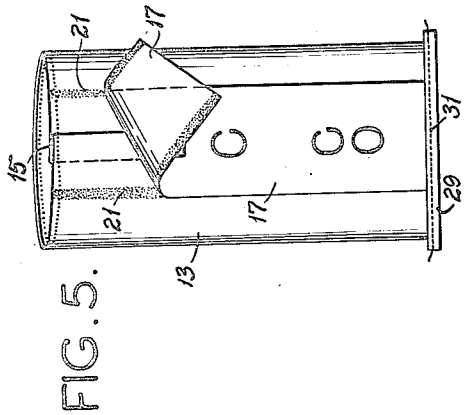


FIG. 5.

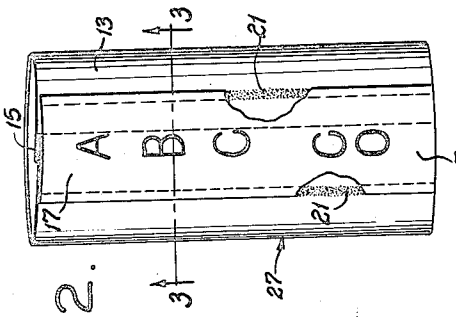


FIG. 2.

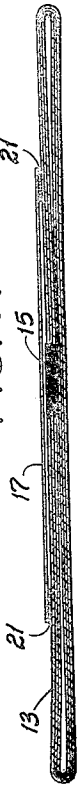


FIG. 3.

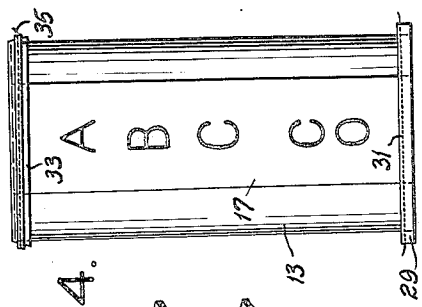


FIG. 4.

FIG. 1.

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FIG. 7.

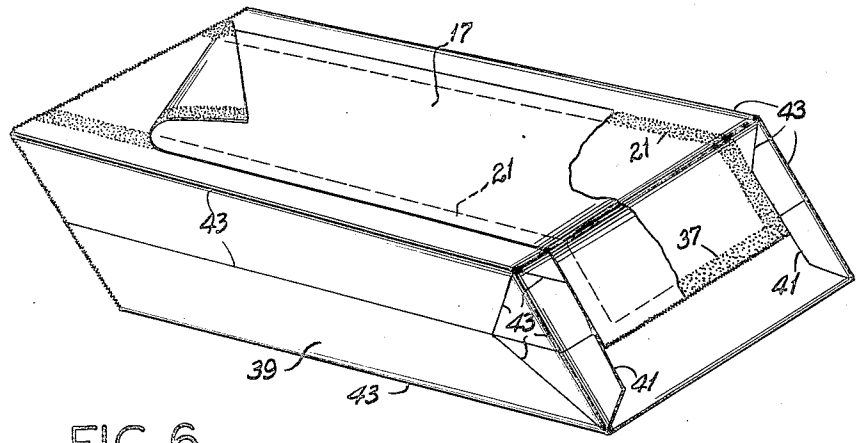
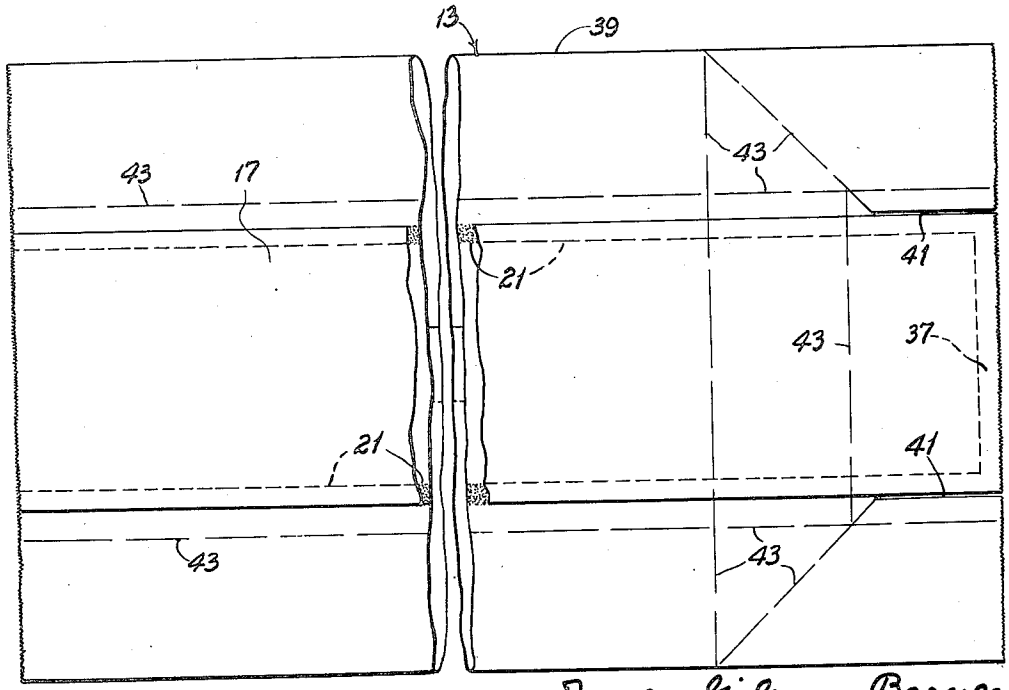


FIG. 6.



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UNITED STATES PATENT OFFICE

2,614,349

DETACHABLE-LABEL BAG

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Application June 17, 1948, Serial No. 33,617

2 Claims. (Cl. 40—2)

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This invention relates to detachable-label bags, and more particularly, to multi-ply paper bags having a readily removable printed paper label.

Among the several objects of the invention may be noted the provision of a labeled bag which may be salvaged for re-use by detaching the label without damage to the bag proper; the provision of a bag of the class described having a readily detachable label which is not likely to peel during first use of the bag; and the provision of a bag of this class embodying a label which may be readily grasped for easy detachment. Other objects will be in part apparent and in part pointed out hereinafter.

The invention accordingly comprises the elements and combinations of elements, features of construction, and arrangements of parts which will be exemplified in the structures hereinafter described, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, in which several of various possible embodiments of the invention are illustrated,

Fig. 1 is a perspective view of apparatus employed in the manufacture of the labeled bag of the invention and illustrating initial steps in the process of manufacture;

Fig. 2 is a front view of an open-ended bag length of the invention, parts being broken away;

Fig. 3 is an enlarged section taken on line 3—3 of Fig. 2;

Fig. 4 is a front view of a finished filled bag, showing bottom and top closures;

Fig. 5 is a front view of an open used bag (top closure removed) with a label strip partly peeled away;

Fig. 6 is a front view of another embodiment of this invention showing a bag length adapted to be formed with a folded bottom, parts being broken away; and,

Fig. 7 is a perspective view of a bag made from the bag length of Fig. 6 with the label strip partly peeled away and part of it broken away.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Purchasers of goods packaged in certain types of labeled bags often wish to re-use the bags after removal of their original contents without any label indicia on the re-used bags. Removal of labels from conventional bags, however, is not readily accomplished without destroying or damaging the bag. For example, heavy multi-ply paper bags, which are in demand as re-usable bags, have label indicia printed on their outermost paper plies. To remove the label indicia, the outermost ply is completely removed. This is not readily accomplished and, of course, weakens the bag due to the removal of a complete ply. If the multi-ply bag is an inter-ply spot-pasted gusseted bag or satchel-bottom bag, removal of the outermost ply is particularly impractical. This invention provides a labeled bag wherein the label is readily removed without damage to the bag proper so that it may conveniently be re-used without the original label.

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Referring to Fig. 1 of the drawings, which illustrates preliminary steps in the manufacture, there is shown at 1 tubing apparatus (tuber) for forming a multi-ply paper bag tube. This apparatus receives a plurality of paper webs 3 from supply rolls (not shown) with the webs in transversely stepped superposed relation and forming a multi-ply paper web 5. The stepped longitudinal marginal edges 7 of the web are coated with adhesive prior to reaching the tuber. In the tuber, the side margins of the web 5 are folded over by folding guides 9 to bring the adhesive-coated edges 7 of the web into overlapping relation to form a tube 13 having a longitudinal pasted seam 15.

According to the invention, a printed paper label strip 17 is withdrawn from a supply roll (not shown) and drawn through a coating device 19 for applying narrow stripes of adhesive 21 to its margins. The coating device as herein illustrated comprises a pair of coating rollers 23 spaced apart a distance corresponding to the width of the label strip. These rollers pick up adhesive from a supply in a reservoir 25 and apply it to the under surface of the label strip as it travels over and rotates the rollers. The coating device is mounted on the tuber above the travelling tube 13. The label strip 17 is combined flatwise with the flattened tube 13 at a combining roll 28, the center line of the strip 17 generally coinciding with the longitudinal tube seam 15. Thus, the label strip extends lengthwise of the tube 13 covering seam 15, and is adhesively secured to the tube by narrow adhesive stripes 21 along its longitudinal margins. The label strip lies flat against the tube and the seams where its longitudinal margins are secured to the bag by adhesive stripes 21 are flat seams. The portion of the label strip intermediate the adhesive stripes 21 is free of the tube.

Subsequently, the tube 13 with label strip 17 thereon is cut into bag lengths 27 such as shown in Figs. 2 and 3. Each bag length comprises a

length of the multi-ply paper tube 13 having label strip 17 extending the full length of the tube covering the tube seam 15 and adhesively secured to the tube at its longitudinal margins by narrow adhesive stripes 21. The label strip 17 is narrower than the width of the flattened tube 13. The adhesive stripes 21 are on opposite sides of the tube seam 15.

Finally, each bag length 27 is closed at one end in any suitable way to form a bottom closure for the finished bag. As illustrated in Fig. 5, the closure may be provided by folding a reinforcing strip 29 around one end of the tube and stitching the strip 29 to the bag as indicated at seam 31 to form a bag bottom seam. Other conventional types of bag bottoms may be used, such as a folded and pasted bottom closure, either of the satchel-bottom or V-bottom type. In Fig. 5, seam 31 catches the lower end of the label strip across the width of the strip. The label strip 17 lies flat against the bag throughout the entire label strip area, the seams where the longitudinal margins of the label strip are secured to the bag by adhesive stripes 21 being flat seams.

In use, the bags are filled and provided with a suitable openable top closure. An exemplary one is shown at the top of Fig. 4, wherein a folded reinforcing cover strip 33 is employed. This strip is held in position by a removable stritched rip cord 35. The stitching of the rip cord passes through the upper end of the label strip 17 to seam and anchor it in the regions between the stripes of paste 21, until the rip cord and cover are removed. Further details respecting a suitable rip-cord type of closure may be obtained from U. S. Patent 2,242,857. Other equivalent removable closures may be used such as plain chain stitching or the like. Or the removable top closure may be provided before filling and the bag provided with a valve for filling purposes. In either case, the upper end of the label strip 17 will be secured to the bag all across the width of the label strip. To empty the contents of the bag, the top closure is removed as shown in Fig. 5. This frees the upper end of the label strip 17. The user may then readily grasp the upper end of the label strip by inserting his fingers between the label strip and the bag wall, and between the marginal adhesive stripes 21. He may then completely peel off the label strip all the way down to the bottom closure. The label strip is readily peeled from the bag without damaging the bag since it is free of the bag throughout most of its area, being secured to the bag only by the narrow stripes of adhesive apart from the bottom closure.

In the filled bag, closed at its bottom and top, the ends of the label strip 17 are completely caught by the bottom and top closures. Also, the longitudinal margins of the label strip are pasted flat to the bag throughout their lengths. Thus, there are no free edges of the label strip subject to peeling from the bag and there is little likelihood that the label strip will be inadvertently peeled from the bag during transit even though roughly handled. When the top closure for the bag is opened, however, a free edge of the label strip is presented and readily caught for peeling.

Another embodiment of the invention is shown in Figs. 6 and 7 in the form of a folded-bottom bag having a readily detachable label. As previously described, the printed label strip 17 is combined with the flat tube of bag material, the

label strip being secured to the bag by flat seams 21 along the longitudinal margins of the strip. However, this embodiment is shown to further include a transverse label seam 37 in the form of a narrow stripe of adhesive bridging the marginal seams 21. The transverse adhesive stripe 37 may be applied to the label strip by means of coating bars in association with the coating rollers 23 previously described.

Subsequently the bag tube with label strip 17 thereon is cut along transverse seam 37 into bag lengths 39 such as shown in Fig. 6. The bag length of this embodiment is further provided with predetermined spaced slits 41 and fold lines 43. Each bag length 39 comprises a tube 13 having a label strip 17 extending the full length of the tube and adhesively secured to the tube at its longitudinal margins and at one end margin by narrow stripes of adhesive. As shown, label strip 17 is positioned within the spaced slits 41. Finally, the prepared end of the bag length is folded and pasted in the customary manner to form the bottom closure shown in Fig. 7. It will be noted, the bottom flap carrying label strip 17 (determined by spaced slits 41) is positioned outermost to overlap the other flap in order to facilitate removal of the label. The bottom of Fig. 7 may be arranged as a so-called satchel bottom or V-bottom when the tube is flattened.

Thus, upon closure of the bag mouth, there is provided a bag having a label secured to the bag completely along all margins of the label. Removal of the closure frees the upper end of the label strip 17 and permits the user readily to grasp the upper end of the label strip to detach it from the bag.

It will be understood that the bag may be formed with gusseted sides and with other types of bottom closures. The label strip needs not to be applied over the longitudinal bag tube seam, but this is advantageous as its provides for protection and concealment of the tube seam. The adhesive for securing the label strip to the bag is preferably of a type applied thinly enough to permit easy peeling of the strip from the bag. If not, it is satisfactory that the center of the strip rips off along the insides of the stripes 21. Thin application of adhesive is feasible since there are no loose edges of the label during first use at which peeling can start.

Cross-reference under Rule 78 is made to my copending divisional application on the method entitled Method of Making Detachable-Label Bags, Serial No. 181,048, filed August 23, 1950.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A paper bag comprising a length of paper tubing having a bottom closure and having a printed paper label strip narrower than the width of the bag extending from the bottom to the top of the bag on the outside of the bag and secured to the bag at the bottom closure and by narrow stripes of adhesive at the longitudinal margins of the label strip with the portion of the label strip between the stripes of adhesive free of the bag and accessible for grasping at the top of the open

bag, the paper label strip lying flat against the bag throughout its entire area and the seams where the longitudinal margins of the label strip are secured to the bag by the narrow stripes of adhesive being flat seams, whereby the label strip may be grasped at the top of the open bag and peeled away from the bag leaving an unlabeled and otherwise undamaged bag.

2. A paper bag as set forth in claim 1 wherein the tubing has a longitudinal pasted seam extending generally centrally of one wall of the bag from bottom to top and wherein the paper label strip overlies and covers the seam, and wherein the stripes of adhesive are on opposite sides of the seam.

JAMES GILMAN BARNES.

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