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CARRYING BAG HAVING OPPOSITELY CURVED SLOTS IN UPPER PANEL PORTIONS OF BAG AND FLEXIBLE REMOVABLE HANDLE

Filed Oct. 26, 1967

FIG. 1.

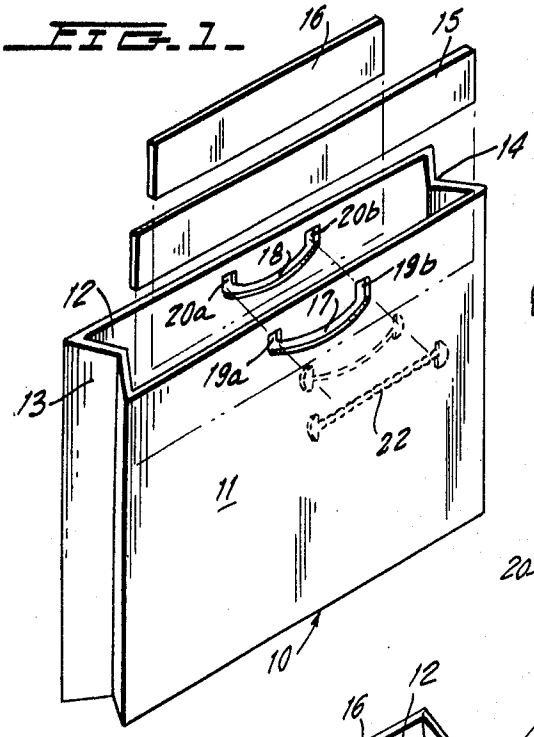


FIG. 5.

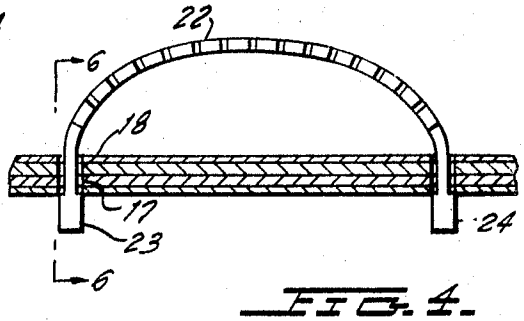


FIG. 4.

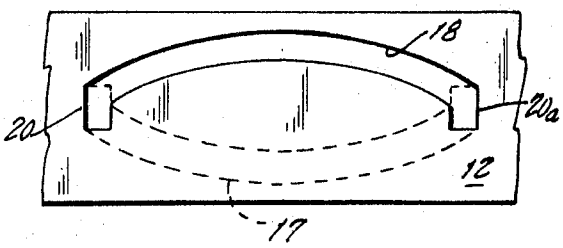


FIG. 2.

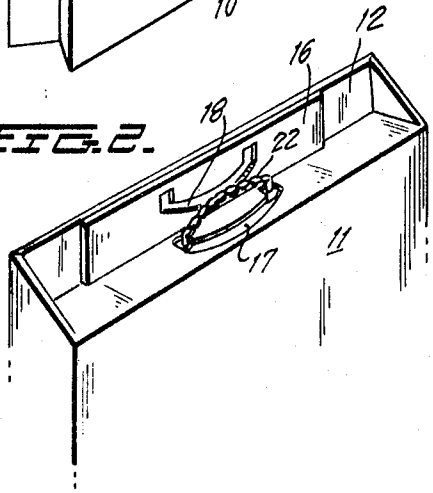
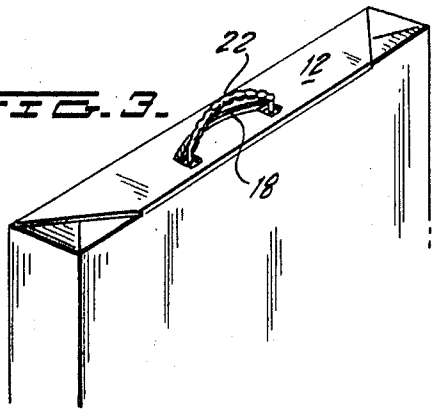


FIG. 3.



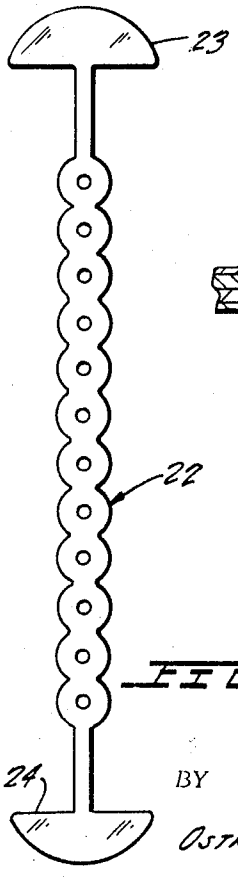
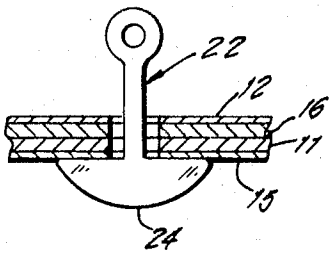


FIG. 7.

FIG. 6.



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CARRYING BAG HAVING OPPOSITELY CURVED SLOTS IN UPPER PANEL PORTIONS OF BAG AND FLEXIBLE REMOVABLE HANDLE

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U.S. Cl. 229—54 5 Claims

ABSTRACT OF THE DISCLOSURE

A carrying bag made of paper in which the upper opposing panels have reinforcing fiber strips. Elongated arcuate slots are placed in registry with one another in the opposing fiber strip portions, and define oppositely arcing slots when the tops are folded atop one another. A flexible handle is passed through the slots when the bag is filled and closed, with the opposite ends of the carrying handle trapped in openings at the intersections of the ends of the oppositely directed slots.

This invention relates to paper-carrying bags of the type such as set forth in U.S. Patent 2,836,344, and more particularly relates to an improved carrying bag which, when closed, forms a square-shaped bag having a carrier handle extending from the top thereof.

In accordance with the present invention, two arcuate slots are placed in reinforced upper portions of the bag panels with the slots in registry with one another when the bag is collapsed, and the top thereof is open. When merchandise is placed inside of the bag, the two opposing panel top sections are folded atop one another along fold lines which are, in part, defined by elongated reinforcing fiber members, such that the arcuate slots are directed oppositely from one another, and define two openings in the region where the arcuate slot ends overlap. The ends of a flexible plastic handle, having enlarged end portions, are trapped in these openings so that the bag and its contents can be conveniently carried from the handle.

It is, therefore, a primary object of this invention to provide a novel paper bag structure which can be adapted to have a carrying handle, and which is inexpensive to manufacture.

Another object of this invention is to provide a novel paper bag having a carrying handle wherein the bag and handle can be easily assembled by inexperienced sales personnel selling merchandise which is placed within the bag.

These and other objects of this invention will become apparent from the following description when taken in connection with the drawings in which:

FIGURE 1 is an exploded perspective view of a thin paper bag constructed in accordance with the present invention.

FIGURE 2 is a view similar to FIGURE 1 with the fiber panels secured to the bag opening interior, and with the first bag panel top portion folded inwardly.

FIGURE 3 illustrates the bag of FIGURE 2 after the other top panel portion is folded over to complete the closure of the bag.

FIGURE 4 is a top view of the bag in its position of FIGURE 3 to illustrate the intersection of the ends of the oppositely directed arcuate slots in the bag panels.

FIGURE 5 is a cross-sectional view of the overlapping panels of FIGURE 3 to illustrate the connection of the flexible handle to the panels.

FIGURE 6 is a cross-sectional view of FIGURE 5 taken across the section line **6—6** in FIGURE 5.

FIGURE 7 is a plan view of the flexible plastic handle of FIGURES 1, 2, 3, 5 and 6.

Referring now to the figures, there is illustrated a paper bag which can be made in any desired manner and could be a kraft paper bag having a sealed bottom portion, a front panel **11**, a rear panel **12** and gusseted side portions **13** and **14**. Note that bag **10** can be made of any desired material such as plastic film, as well as paper.

In accordance with the invention, reinforcing fiber strips **15** and **16**, which may have a width of about three inches and lengths of about twelve inches and nine inches, respectively, are glued to the interior of panels **11** and **12**, respectively, with the tops thereof lying along the top of panels **11** and **12**, respectively. Strips **15** and **16** could be of any desired material having a greater rigidity than that of panels **11** and **12** and could be secured to the panels in any desired manner. The length of reinforcing strip **15** is the same as the length of panel **11**, while the length of panel **16** falls short of the length of panel **12** by about two inches at either end.

Arcuate slots **17** and **18** are then stamped out of the collapsed panels **11** and **12** after gluing of fibers **15** and **16** thereto, whereby the slots **17** and **18** are of identical configuration, and are in alignment with one another along the center of strips **15** and **16**. It will be noted that slots **17** and **18** are bowed downwardly on a radius of about eight inches, and have parallel extending end portions **19***a*–**19***b* and **20***a*–**20***b*, respectively.

A carrying handle **22**, shown in FIGURE 7, is then formed for the bag and may be injection molded and formed of any suitable, flexible thermoplastic material. Handle **22** is formed in the shape of integral bead sections, thereby imparting considerable flexibility to the handle. The ends of handle **22** are then formed of enlarged semicircular sections **23** and **24**, respectively. FIGURE 1 illustrates the flexibility of handle **22** from its normal, straight configuration to its dotted line, circular configuration.

In order to close the bag, the handle **22** is inserted from the inside of the bag, through slot **17** as indicated in FIGURE 2. The upper portion of panel **11** is then bent downwardly, with the gussets on either end of panel section **17** bent under the panel. Thereafter and as shown in FIGURE 2, the extending gusset portions are deflected inwardly and the opposite panel sections, including strip **16**, are bent downwardly with the user bringing the extending portion of handle **22** through slot **18** so that the bag is completely assembled, as shown in FIGURE 3.

As best shown in FIGURES 3 and 4, when the bag is folded, the end sections of arcuate slots **17** and **18** overlap, thereby defining two spaced openings through the bag top. Handle **22** extends through these aligned apertures, with the handle end sections **23** and **24** captured beneath the bag top, as best shown in FIGURES 5 and 6.

The embodiments of the invention in which an exclusive privilege or property is claimed are defined as follows:

1. A carrying bag comprising a pair of opposing rectangular panels joined at their sides and at their bottom; first and second thin elongated strips having a greater rigidity than the rigidity of the material of said panels; said first and second strips secured to the interior surface of said first and second panels, respectively, and having top edges lying adjacent the top edge of said first and second panels, respectively; said first and second strips and the portions of said first and second panels receiving said strips having identical curved slots therein coextensive with one another and bending in the same direction when the interior surfaces of said first and second panels are collapsed toward one another; and a flexible carrying handle having enlarged end portions inserted from the interior of said first panel through said slot therein with said enlarged ends of said handle captured at the opposite ends, respectively, of said slot in said first panel; central portions of said handle being insertable through said slot in said second panel when the top of said first panel is turned inwardly of said bag and the top of said

second panel is closed over the top of said first panel; the ends of said first and second slots registering with one another when the tops of said first and second panels are closed on top of one another; said extending slots each having parallel end sections extending generally toward the radius of their curvature.

2. The carrying bag of claim 1 wherein said first and second panels are of paper and said first and second strips are of cardboard.

3. The carrying bag of claim 1 wherein said first and second strips are glued to said first and second panels.

4. The carrying bag of claim 1 wherein said first and second strips are rectangular; said first strip having a length equal to the length of said first panel; said second strip having a length about 4 inches less than the length of said panel.

5. The carrying bag of claim 1 wherein said enlarged end portions of said handle are hemispherically shaped.

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DAVID M. BOCKENEK, Primary Examiner

U.S. Cl. X.R.

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