United States Patent [19]

Bird

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[54] **CARTON CARRIER**

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[52] **U.S. Cl.**..... **294/31.2,** 294/31.2, 206/65 D, 224/45 AA

[51] **Int. Cl.**..... **B65d 71/00**

[58] **Field of Search** ..... 294/28, 31 A, 31.2, 33, 294/87 R, 87.2; 206/65 B, 65 C, 65 D, 65 E; 215/100 A; 220/94 R, 94 A, 94 B, 85 H; 224/45 A, 45 AA, 45 AB, 45 BA, 45 P; 229/52 A, 52 BC

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Assistant Examiner—Johnny D. Cherry

[57] **ABSTRACT**

This invention relates to a carton carrier formed from a flat sheet of flexible material in which holes and notches of various shapes are formed. The carrier is assembled by drawing one end of the sheet through an appropriate central hole therein until edges defining the hole slide into notches formed on each side of the flat sheet.

So assembled, a rolled carrying handle and angularly extending end flaps are formed. Aligned openings in the handle permit ready finger insertion for easy carrying and larger openings in the end flaps allow the end flaps to be placed around an upstanding carton such that lifting on the handle will bend the carrier around the cartons whereby the cartons can be readily lifted.

4 Claims, 3 Drawing Figures

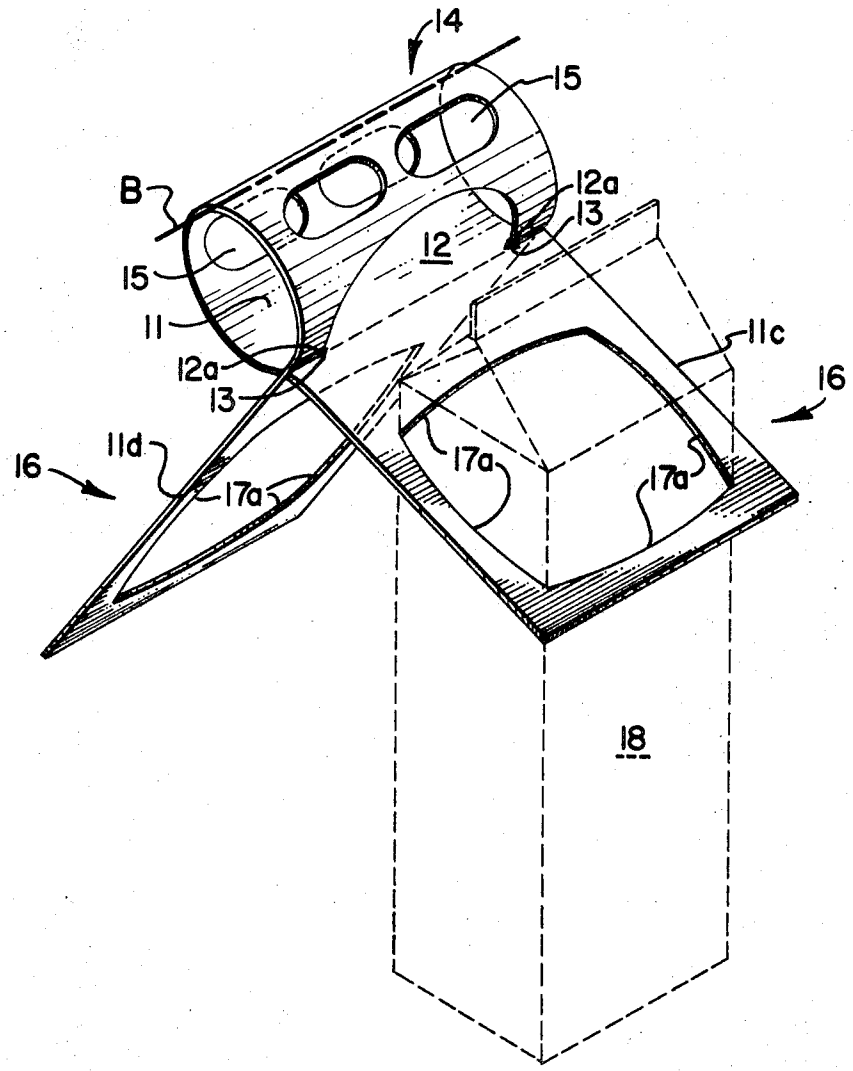


FIG. 1

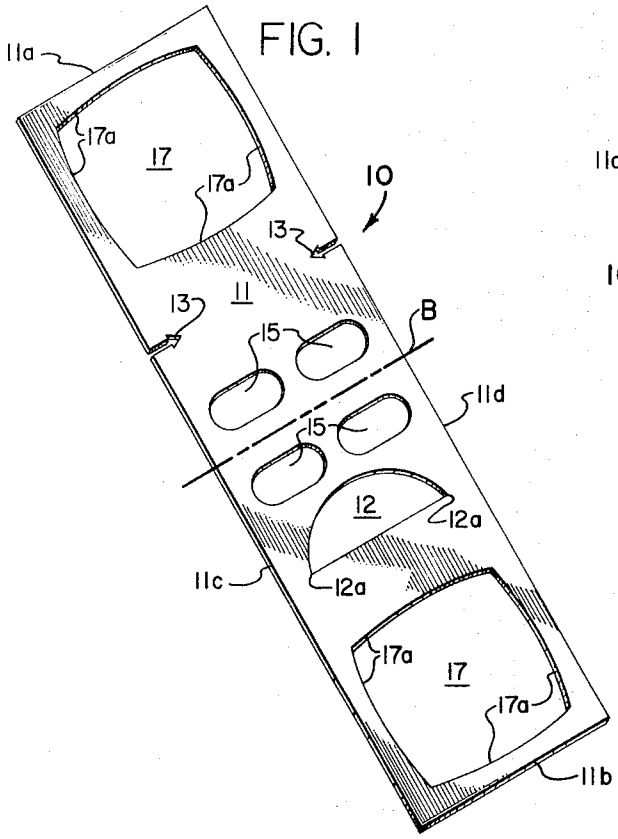


FIG. 2

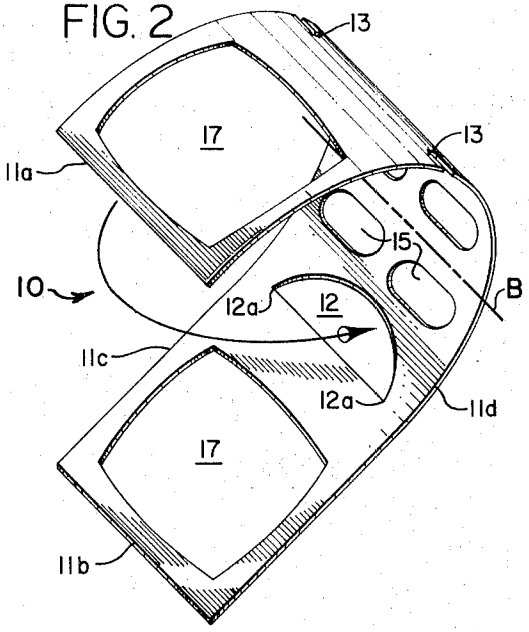
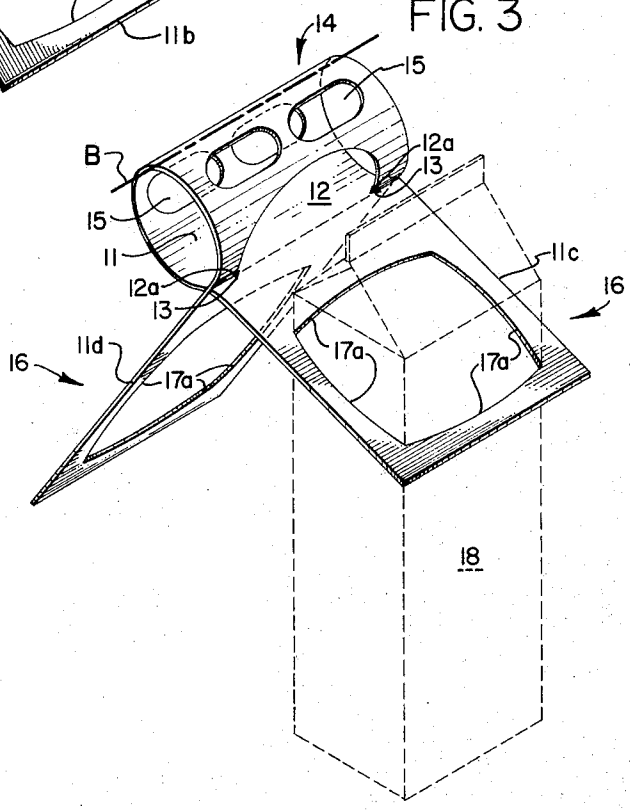


FIG. 3



CARTON CARRIER

BRIEF DESCRIPTION OF THE INVENTION

1. Field of the Invention

This invention relates to carriers for transporting small containers, such as milk cartons.

2. Prior Art

There are numerous carriers currently available for supporting and transporting carton-type articles. Some such carriers utilize a frictional engagement between the carrier and the sides of the carton or cartons transported, while others provide platform structures supporting the carton bases. Still others are actually locked to the carton's surface. Such carriers generally are too costly and difficult to fabricate and frequently involve considerable labor in setting them up for use. Because of their bulk it may also prove impractical to transport such known carriers.

SUMMARY OF THE INVENTION

Principal objects of the present invention are to provide a carrier formed from a single flat sheet of flexible materials which is capable of supporting one or a pair of cartons in carrying openings formed therein.

Another object is to provide a carrier that does not require clamps or other joining or connecting means to assemble the flat sheet of material into a finished carrier.

Still another object is to provide a carrier which can be reused many times to conveniently transport one or a pair of cartons.

Principal features of the present invention include a flat sheet of strong, flexible material, such as plastic, having greater length than width dimensions and with an arrangement of holes or openings formed therein.

To assemble the flat sheet into a carrier, an end thereof is folded back through an appropriate central hole or opening formed in the flat sheet. The end of the sheet is drawn therethrough until aligned notches formed on opposite outer sides of the sheet are in contact with and slide over edges defining the central hole.

Elongate finger holes are formed in parallel rows; with the rows spaced either side of the center line extending transversely across the flat sheet. When the carrier is arranged into an assembled condition, the rows are aligned in opposite side walls proximate the center line of a rolled handle formed in the carrier. A user can readily insert fingers through the aligned finger holes to securely grasp the carrier.

Carrying openings formed in the ends of carrier have shapes which essentially conform to the shape of a carton to be transported. However, the sides of the carrier openings may be curved somewhat more than the carton sides.

Cartons to be transported have dimensions that are very slightly smaller than those of the carrying openings into binding engagement with the carton sides and the binding engagement of the opening sides to a carton therein prevents slippage of the carton and allows the carrier to be used to transport a carton in each of its carrying openings.

Additional objects and features of the invention will become apparent from the following detailed description, taken together with the accompanying drawings.

THE DRAWINGS

FIG. 1 is a perspective view taken from above and at one corner of the carrier of the present invention, in its unassembled condition;

FIG. 2, a perspective view showing how the carrier end is moved through a central hole to assemble the carrier; and

FIG. 3, a perspective view of the assembled carrier with a carton shown in dotted lines inserted through one of the carrying openings.

DETAILED DESCRIPTION

Referring now to the drawings:

In the illustrated preferred embodiment, the carton carrier of the present invention is shown generally at **10.** As shown in FIG. **1,** the carrier **10** in its unassembled state comprises a flat thin sheet of somewhat flexible material **11,** preferably plastic, having a number of holes and openings therein.

FIG. **2** shows one end **11**a of the sheet of material **11** being drawn through a central hemispherical assembly opening **12** formed therein. The flat sheet end **11***a* is partially rolled and drawn through the opening **12** until the end **11***a* thereof is approximately aligned with the edge **11***a* of the opposite flat sheet end **11***b*. Opening is made hemispherical in shape to allow the partially rolled sheet end be easily passed therethrough. After insertion, the flat sheet of material is held rolled about its transverse center axis B by notches **13** that are formed at opposite sides of the sheet of material **11** and that receive the material of sheet **11** adjacent to the pole ends **12***a* of the hemispherical opening **12.** When the end **11***b* has been pulled through to allow the notches to engage the material at pole ends **12***a*, as shown in FIG. **3,** the ends **11***a* and **11***b* extend essentially the same distance from the notches, thereby providing balance to the carrier, as will be explained. As noted, passage of the sheet of material end **11***a* through the central hole **12** rolls the sheet of material **11** upon itself in the area of transverse axis B and forms a rolled handle shown generally at **14,** FIG. **3.**

Spaced, elongate finger holes **15** are formed to extend across the sheet of material **11** with their long axis extending parallel to the transverse axis B, and with a row on each side of the axis B. When the rolled handle **14** is formed, in the manner heretofore described, the elongate finger holes **15** are positioned such that the holes **15** on one side of axis B are in alignment with corresponding holes **15** on the other side of the axis, whereby a user may insert his fingers through the hole to grasp the handle.

The carrier **10,** when assembled as heretofore described, thus includes handle **14** and carrying flaps **16** extending angularly outward from the handle. The carrying flaps **16,** FIG. **3,** include the respective flexible ends **11***a* and **11***b* of the sheet of material **11,** and carrying holes **17** formed therein. Each carrying hole **17** is preferably formed to conform generally to the outer dimension of a carton to be carried. Thus, for use with mild cartons, the holes **17** are each of generally rectangular configuration, but with the opening sides curved to accommodate the normal bulge of the side walls of such a filled carton as the carrying flap is positioned around the carton.

After the carrying flaps **16** have been positioned around a container, lifting on handle **14** will raise the

edge of hole **17** on the container until a binding action occurs between the edges of the hole and the container. Thereafter, continued lifting of the handle will raise the container, and, if two containers are raised simultaneously by the flaps **16** the containers may swing together. Obviously, with the present invention, there is provided a very low cost, yet reliable, carrier that will enable a user to easily carry a pair of containers, such as milk cartons in one hand.

Although a preferred form of my invention has been herein disclosed, it is to be understood that the present disclosure is made by way of example and that variations are possible without departing from the scope of the hereinafter claimed subject matter, which subject matter I regard as my invention.

I claim:

1. A carton carrier comprising

a thin sheet of flat, flexible material having greater length than width dimension and a transverse central axis;

a central assembly opening formed in said sheet which central opening is large enough to allow passage therethrough of a rolled end of said sheet;

aligned notches formed in opposite side edges of said sheet to engage material at opposite ends of said central assembly opening when said rolled end is inserted therethrough and is unrolled;

spaced finger holes forming rows at each side of said axis whereby said finger holes of one row are aligned with finger holes of the other row when the said end of said sheet is drawn through said central assembly opening and said notches are in engagement with the material at the ends of said central opening; and

carrying openings formed between ends of said sheet and the intersection of said notches and said central assembly opening, said carrying openings being shaped to fit over and closely accommodate a container to be carried therein.

2. A carton carrier as recited in claim **1**, wherein the thin sheet of flat, flexible material is a plastic material.

3. A carton carrier as recited in claim **1**, wherein the assembly opening has a hemispherical shape.

4. A carton carrier as recited in claim **1**, wherein the finger holes are elongate in shape and are formed in the flat, flexible sheet of material such that they extend in rows arranged along either side of the transverse axis of the flat, flexible sheet of material, with the longest axis of each finger hole arranged to extend parallel to said transverse axis.

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