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PACKAGE

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FIG. 1

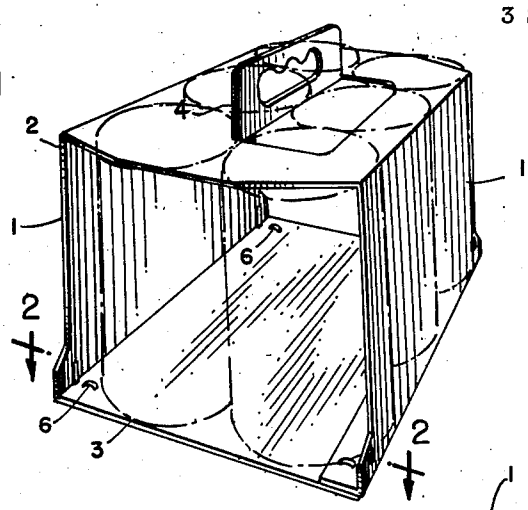


FIG. 2

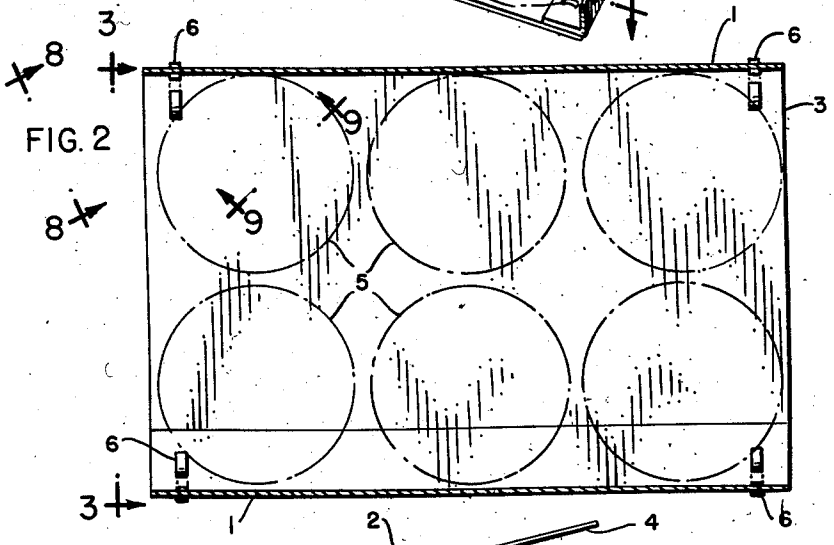
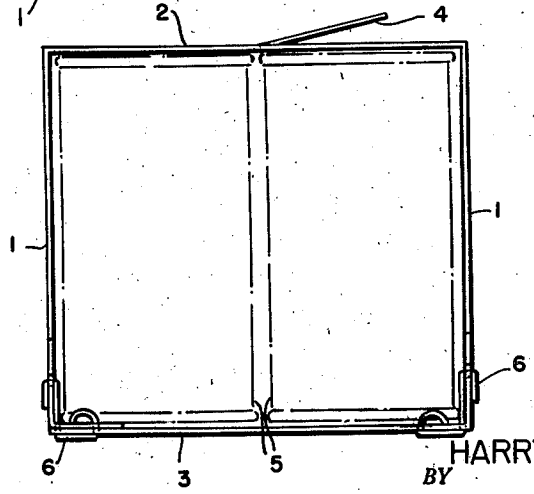


FIG. 3



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FIG. 4

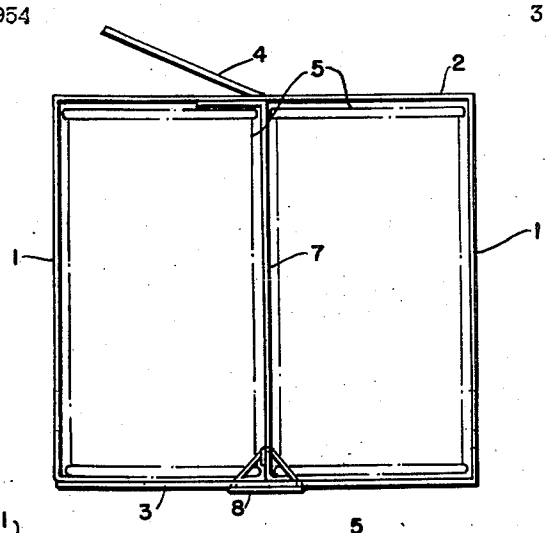


FIG. 5

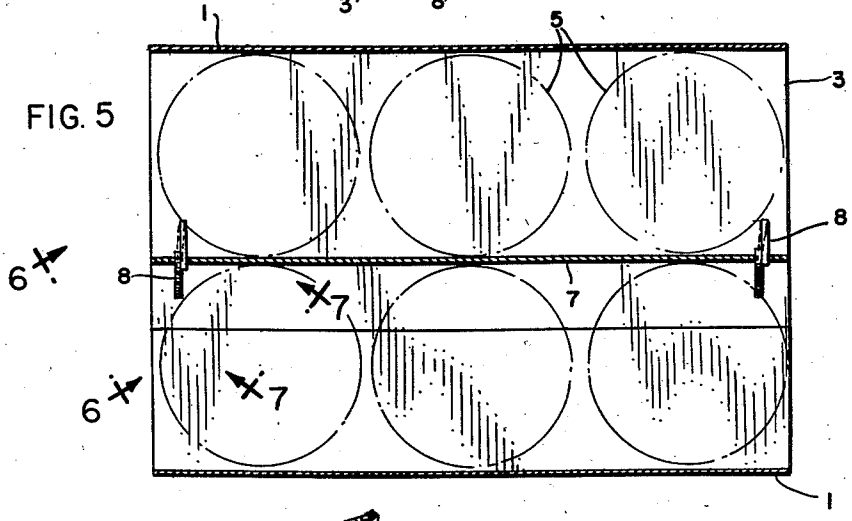


FIG. 6

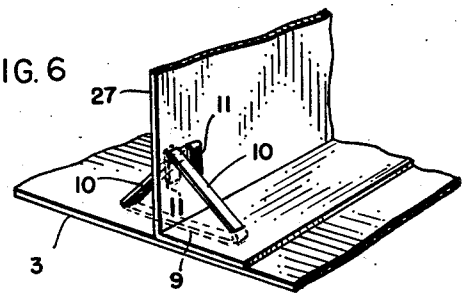
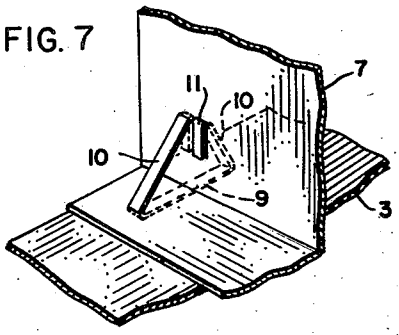


FIG. 7



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FIG. 8

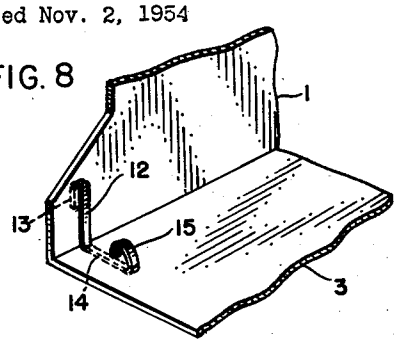


FIG. 9

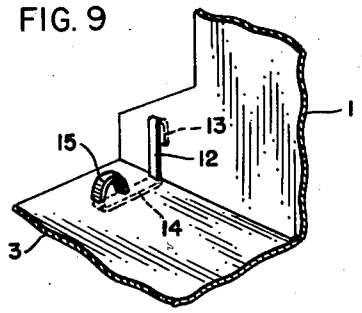


FIG. 10

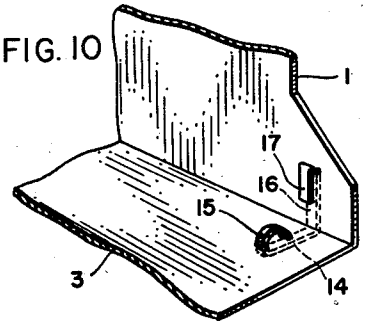


FIG. 11

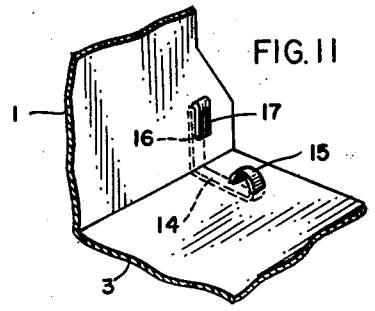


FIG. 12

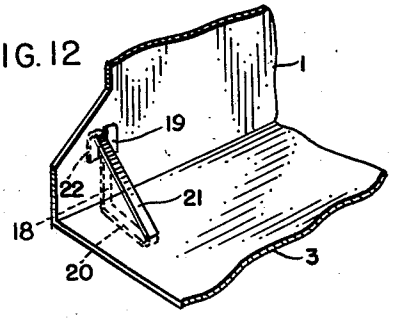


FIG. 13

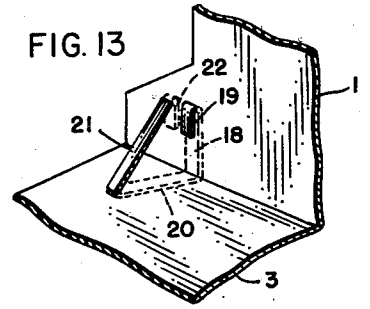


FIG. 14

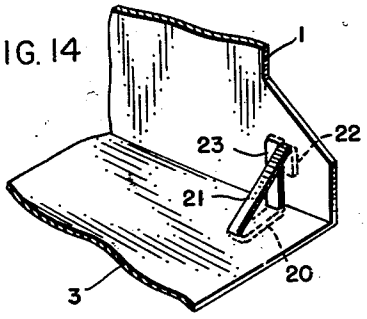
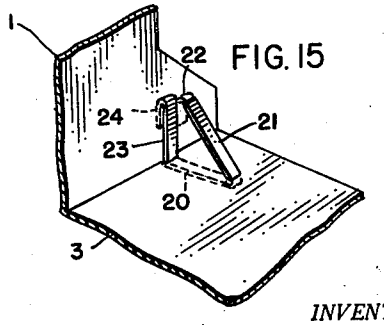


FIG. 15



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PACKAGE

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Application November 2, 1954, Serial No. 466,346

2 Claims. (Cl. 206—65)

This invention relates to cartons for carrying cans and other containers, and more particularly to inexpensive paper or cardboard carriers within which cans of beverages and the like may be packaged.

It has become a usual practice to market beverages and the like in cans and other containers which are highly lithographed and otherwise decorated for the purpose of sales appeal. It is desirable to package these cans and other containers in lots of four or six, etc., for convenience in handling and carrying. Many cartons or carriers in present use completely enclose their contents and thereby hide the cans. It is more desirable in marketing to have abbreviated carriers which expose the cans to view. This increases the sales appeal and lessens the manufacturing cost of the carriers. Carriers which will expose the cans must be constructed in a manner such that the contents thereof will not slide out of the carton or otherwise spill.

It is an object of this invention to provide inexpensive carriers for beverages packaged in cans or other containers.

It is a further object to provide open-ended carriers which will conveniently display their contents and to further provide an inexpensive means for preventing the contents to slide out the open ends.

When cartons are placed under refrigeration and then subsequently exposed to air, less effort is required to separate glued surfaces when stress is applied at right angles. It is a further object of this invention, therefore, to provide carriers with means for preventing their contents from sliding from an open end and at the same time to provide reinforcement of the glued surfaces, thereby giving additional strength to the carriers.

According to this invention, an open-ended carrier for cans and other containers is provided with wire fasteners to be attached near the open ends. The wire fastener has a part which engages a vertical wall of the carrier and another part which engages a horizontal wall or bottom of the carrier. A further part of the wire fastener protrudes within the carrier, forming an abutment to obstruct a can which may otherwise tend to slide out of the open end of the carrier. Since this wire fastener attaches between the horizontal and vertical walls of the carrier, it serves to reinforce the glued seams which might tend to pull apart.

A more complete understanding of the present invention, its mode of operation and its advantages may be gathered from further reading of this specification together with an inspection of the accompanying drawing, in which:

Figure 1 illustrates pictorially an inexpensive cardboard carrier for the display and handling of beverages packaged in cans and other containers and having metal fasteners of a type taught by this invention;

Figure 2 is a detail sectional view of the carrier showing the position of the wire fasteners and the position of cans contained therein, said view being taken on the line 2—2 of Figure 1;

Figure 3 is an end view of the carrier looking in the direction of the arrows 3—3 of Figure 2 and illustrating the manner in which the wire fasteners form abutments to prevent cans from sliding;

Figure 4 is an end elevational view of a carrier showing another form of the wire fastener which may be attached between the bottom wall of the carrier and a vertical dividing wall between adjacent rows of cans;

Figure 5 is a sectional view of a divided carrier showing the wire fasteners and their relation to the cans within the carrier;

Figure 6 and Figure 7 are broken-out views of one type of metal fastener taught by this invention, said views being taken on the lines 6—6 and 7—7 respectively of Figure 5;

Figures 8 and 9 are broken-out views on the lines 8—8 and 9—9 respectively of Figure 3 and illustrate a wire fastener of another form of this invention;

Figures 10 and 11 are views similar to Figures 6 to 9 inclusive and show a third type of metal fastener;

Figures 12 and 13 are views similar to Figures 6 to 11 and illustrate a fourth type of fastener; and

Figures 14 and 15 are views similar to Figures 6 to 13 and are illustrative of a fifth type of metal fastener.

In the various figures of the drawings the same or similar elements are designated by the same reference numeral.

Although it will be appreciated that the paper carton or carrier herein described is portable and capable of assuming any position with relation to the true vertical and horizontal planes, it will be assumed for the purposes of this specification that the carrier shall stand in its normal position. Those sides defined as being vertical must then be upright and parallel to the axes of the cans or containers, and those sides defined herein as horizontal must lie flat at right angles to the axes of the cans or containers.

Referring to Figures 1, 2, and 3, there is shown an inexpensive cardboard carton for displaying and handling canned beverages. The carton comprises a pair of vertical walls 1 which form the sides of the carton and a pair of horizontal walls 2 and 3 which form respectively the top and the bottom of the carrier. A handle 4 is cut from the top wall 2 and folded upward. As illustrated in Figure 2, six cans of beverage 5 may be conveniently packed within the carton. In other instances cartons may be made for other quantities of cans or containers.

In each corner of the carton wire fasteners 6 are placed to provide abutments against the cans and to prevent them from sliding through the open end of the carrier.

Figures 4 and 5 illustrate another form of cardboard carrier wherein a vertical dividing wall 7 is inserted between the adjacent rows of cans. When a carrier utilizes a vertical dividing wall 7, wire fasteners 8 may be attached to this vertical dividing wall and thereby provide abutments on both sides for obstructing the cans and preventing their sliding from the carrier. In this case two such fasteners are required instead of the four fasteners which would be necessary in the simplified carrier illustrated in Figures 1, 2, and 3. The type of wire fastener 8 which is most useful in carriers having the vertical dividing wall, is more clearly illustrated in Figures 6 and 7. This type of fastener includes a horizontal part 9 which presses against the under side of the bottom wall 3 of the carrier. Two diagonal parts 10 protrude upward into the carrier space to form an abutment for the beverage cans The ends of the wire fastener 11 are pierced through the vertical dividing wall 7 and crimped over to form a firm engagement thereto.

Figures 8 and 9 more clearly illustrate the type of fastener which was generally shown in Figures 1, 2, and 3. This type of fastener has a vertical part 12 pressing against

the inside of the vertical wall **1** of the carrier. An end **13** of the wire fastener is pierced through the vertical wall **1** and crimped down to form a firm engagement with that wall. Another part **14** of the fastener lies horizontally beneath the bottom wall **3** of the carrier from the juncture of the vertical wall **1** with the bottom wall **3**. A curved part **15** of the fastener extends upward through the bottom wall from the horizontal part **14** and is bent back with its end abutting against the horizontal part **14**, thereby forming a firm engagement with the horizontal bottom wall **3**. The curved part **15** thus forms an abutment to prevent slidage of the beverage cans.

Figures 10 and 11 show another form of the invention wherein the wire fastener has a vertical part **16** external to and pressing against the vertical wall **1** of the carrier. In this case the end of the wire fastener **17** pierces through the vertical wall **1** to the inside and is there crimped down to form a firm engagement with that wall. As in the fastener illustrated by Figures 8 and 9, this fastener likewise has a horizontal part **14** lying beneath the horizontal bottom wall **3** of the carrier and a curved part **15** extending up into the interior of the carrier to form an abutment for the cans of beverage. This curved part **15** is bent back and has its end butted against the bottom wall **3** of the carrier and the horizontal part **14** of the fastener.

Another embodiment of this invention is shown in Figures 12 and 13 wherein a vertical part **18** of the wire fastener is pressed flat against the outside of a vertical wall **1** of the container. An end **19** of the fastener is pierced through the vertical wall **1** of the carrier and is cinched down to firmly engage the fastener to the vertical wall **1**. A horizontal part **20** of the fastener extends under the bottom wall **3** of the carrier from the juncture of the vertical and horizontal walls to a point where it joins a diagonal part **21** by piercing the bottom wall **3** of the carrier. The diagonal part **21** of the fastener extends to a point where it pierces the vertical wall **1** of the carrier, at which point an end **22** is bent downward to firmly engage the vertical wall **1**.

In another variation shown in Figures 14 and 15, a vertical part **23** presses against the inner surface of the vertical wall **1** of the carrier. An end of the fastener **24** pierces the vertical wall **1** and it is cinched down to firmly engage the fastener to the vertical wall. A horizontal part **20** extends from the juncture of the vertical wall **1** and the bottom wall **3** of the carrier to a point where it joins a diagonal part **21**. The diagonal part **21** extends to the vertical wall **1** where an end **22** of the fastener pierces the vertical wall and is cinched downward to secure the fastener. In this form of the invention the diagonal part **21** forms an abutment to prevent the slippage of the cans or other containers from the carrier.

The term "wire," as used in this specification, is not intended to be limited to any particular type of wire having any particular cross-section, circular or otherwise. It has been found that a flat wire having a rectilinear cross-section can be used satisfactorily in the practice of this invention.

The carriers or cartons are delivered in collapsed position to reduce space in shipping and storing. Prior to filling, they are expanded as shown in Figures 1, 3 and 4, after which time the cans are positioned in place. The wire fasteners are then put in place by means of a fastener device. After the cans have been inserted and the fasteners have been applied, the cans are locked in place, the fasteners being applied after the cans are put into the carriers.

Changes may be made in the form, construction and arrangement of the parts without departing from the spirit of the invention or sacrificing any of its advantages, and the right is hereby reserved to make all such changes as fall fairly within the scope of the following claims.

What is claimed is:

1. A package comprising a carrier for cans and other receptacles comprising opposed spaced horizontal walls including a top and a bottom, opposed spaced vertical walls connected to said horizontal top and bottom walls and forming an open-ended tubular container, a plurality of receptacles in the carrier supported by said carrier bottom and contacting at least one side wall, a wire fastener adjacent an outer end of the carrier and contacting a receptacle exteriorly of the receptacle and outwardly of the tangential line of the container and its contacting side wall for preventing the receptacles from falling out an open end of the carrier, said fastener having a part engaging a vertical wall and a part engaging a horizontal wall, said fastener including a part arranged interiorly of the container at a juncture of a vertical wall with a horizontal wall at an open end of the container to form an abutment to prevent cans or other receptacles from sliding out of the container at the end of the carrier having the fastener applied thereto.

2. A package comprising an open-ended container enclosing and supporting a plurality of receptacles, such as cans, said container having opposed vertical side walls and opposed horizontal walls, the horizontal walls including a top and a bottom connected to said vertical side walls, said receptacles being supported on the container bottom with at least one side of a container in contact with the outside of a receptacle, and a wire fastener fastened to a vertical wall and the bottom of said container, said fastener being located inwardly of the outer end of the container at the open end of the container and contacting a receptacle at an outer side thereof and at the juncture of a horizontal wall and a vertical wall inwardly of the container at its lower end, said fastener forming an abutment engaging a receptacle at its outer surface at the open end of the container to prevent a receptacle from falling out of an open end of the container.

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