

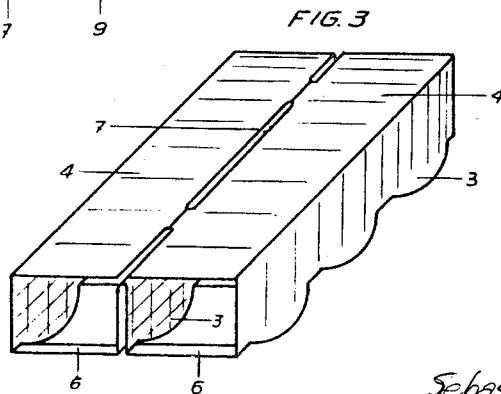
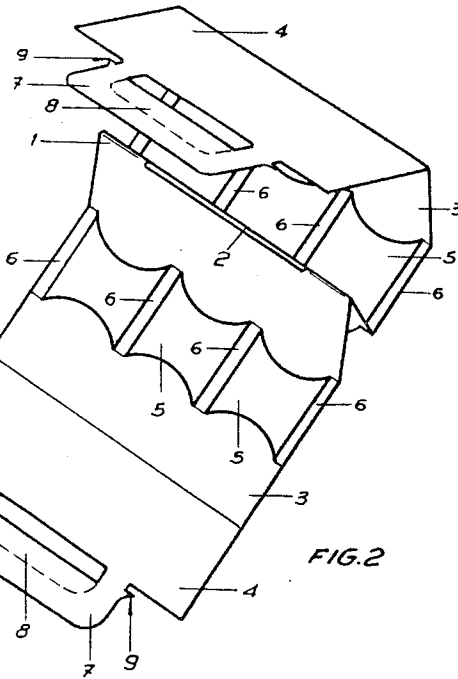
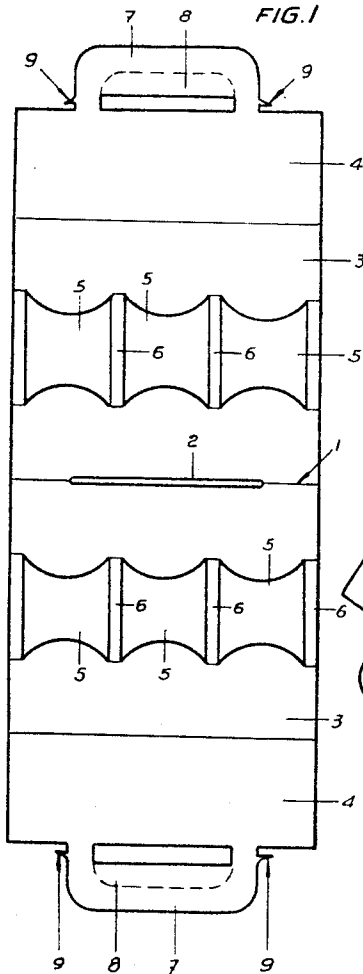
July 30, 1968

S. P. VILANOVA
FOLDING CONTAINERS FOR THE PACKAGING, STORAGE, DISPLAY
AND CARRIAGE OF GOODS IN PARTICULAR

3,394,845

Filed Jan. 28, 1966

2 Sheets-Sheet 1



INVENTOR

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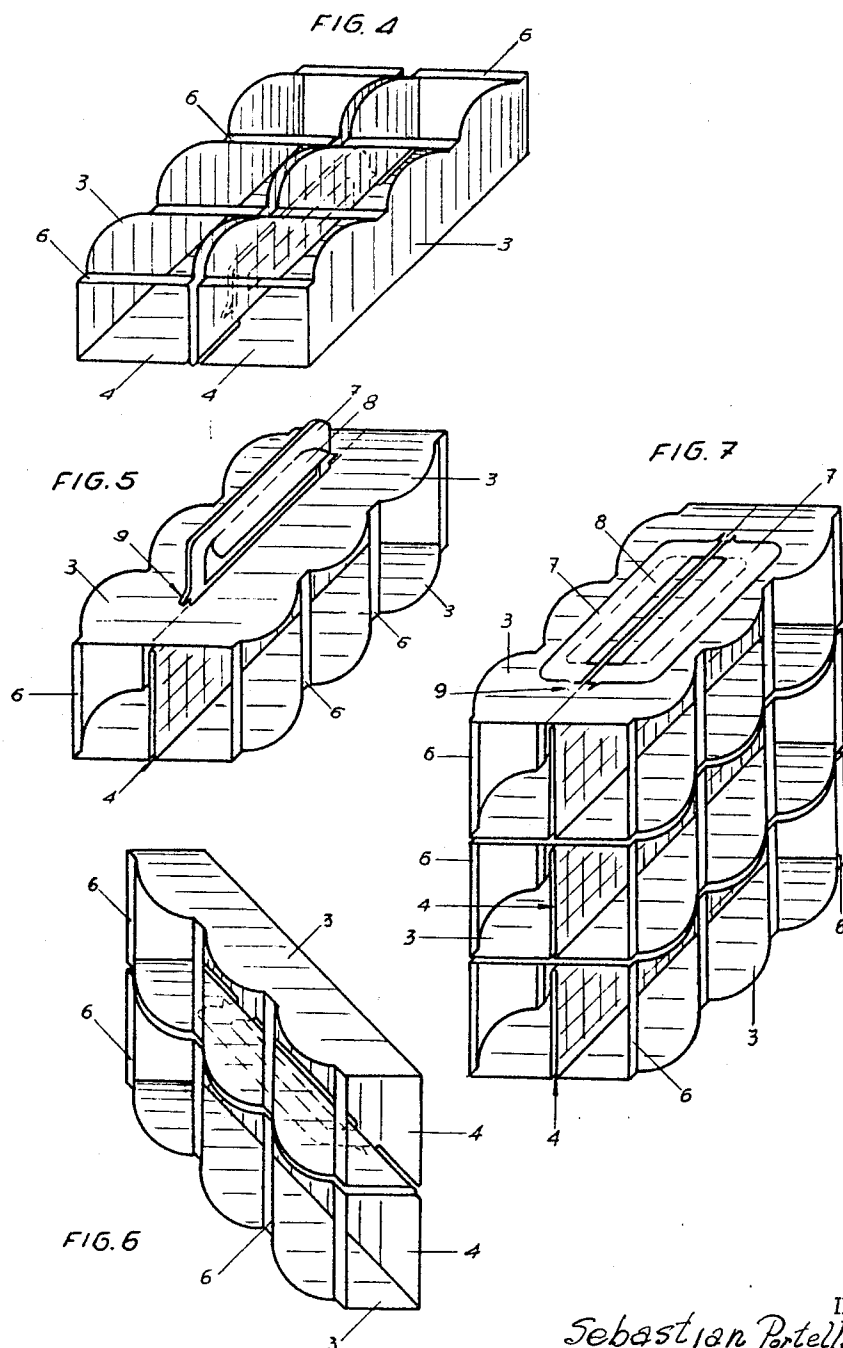
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2

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FOLDING CONTAINERS FOR THE PACKAGING, STORAGE, DISPLAY AND CARRIAGE OF GOODS IN PARTICULAR

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1 Claim. (Cl. 220-115)

ABSTRACT OF THE DISCLOSURE

A foldable container for articles wherein a single sheet is divided into two sections symmetrical respecting the central fold line serving as a hinge and provided with a longitudinal slot with each section being divided into two portions of different dimensions. Each portion of greater dimensions has windows separated from each other by strips of the sheet material functions to secure the articles placed in the windows so they are visible and a handle component on each of the other portions passes through the slot and projects beyond one of the portions of greater dimensions when the sheet is folded to form the container.

The present invention has as its object the provision of a foldable container, for the packaging, storage, display and transport of goods in particular.

The essential feature of the container of the present invention resides in that this container is made from a single piece of sheet form, by a simple punching operation, and that when it is in the folded state, it forms an assembly wherein the load-carrying part is formed by its very sections. According to this feature, the container is made from a single piece, without glued, stapled or other joints of any kind.

Depending on its folding stage, the present container may serve different purposes, and it is equipped with handles and arranged for carrying a definite number of objects, such as bottles or cans, while slight modifications in shape render it possible to carry objects of parallelepipedal or other geometrical form.

According to the invention, the container is made from an element of sheet form of rectangular shape, provided with apertures by a punching operation, and divided into two equal and symmetrical parts of sections in the longitudinal direction by the center line separating the same and acting as a hinge. The central line has a longitudinal slot for insertion of the handle portion integral with the other extremity of each of the symmetrical sections of the complete sheet. Each of these two symmetrical sections is divided in turn into two rectangular portions with one being of greater dimensions than the other, and the portion or greater dimensions having a number of openings cut in its surface, leaving behind separating strips of the material, with these strips acting as securing elements for the objects which are to be carried in the container, thus leaving the objects visible, so that the container need not be labelled or printed to indicate its contents.

From the terminal rectangular portion of each of the symmetrical sections there extends a handle portion which in its hole is provided with a flap intended to distribute the weight of the container over a wider area of the hand. Close to their outer base lines, and parallel to the side from which they extend, these handles have a small projection or tab at each side arranged so that the gap between the sides and the corresponding tab serves the purpose of retaining the folded container in a secure position.

To fold the sheet forming the container, the central hinge line is lifted, the objects to be carried are placed

over the openings or windows adjacent to the fin or spine on either side, the spine being formed by the raised hinge, one object being placed over each such window, and the terminal rectangular portions are folded over so that their extreme handle portions may be passed through the slot in the hinge line or fold, the objects to be carried being enclosed in this manner, the whole then being turned over and its two halves being pushed together into abutment, and in which position the handles project out of the hinge slot trapped between the two halves of the container.

The handles of the container may be folded down flush on the adjacent sides of the same, so that a number of these containers may be stacked for display or packing purposes. A container folded in this manner equally acts as a display unit for the objects it carries.

For carrying jars or bottles, perforations are made in portions or sections of the basic sheet for the insertion of the neck or small ends of these objects with these perforations being made at appropriate intervals to facilitate folding the whole.

The following detailed description and accompanying drawings are given by way of example but by no manner of means of limitation.

FIGURE 1 shows a plan view of the particular form imparted to the sheet element forming the present container by punching.

FIGURE 2 is a perspective view and illustrates a stage in the folding of the container shown in FIGURE 1.

FIGURE 3 is a perspective view and illustrates the penultimate folding stage, and

FIGURE 4 shows the same folding stage with the container turned over.

FIGURE 5 is a view in perspective of the container in the final folding stage, ready for carrying by hand.

FIGURE 6 is a perspective view and shows one of the positions in which the container may be placed to display the contained merchandise and

FIGURE 7 is a perspective view and shows a number of these containers stacked for packing, storage or display.

As apparent from the accompanying figures, the present container is characterised in that it is formed from a sheet element in which the particular shape is produced by punching. This sheet element has a central fold line 1 provided with a slot 2 along its length and which divides the sheet into two equal sections symmetrical with respect to the fold line. In turn, each of these symmetrical sections is divided into two rectangular portions 3 and 4. Each portion 3 has provided therein so-called windows or openings 5 separated from each other by strips 6 of its own material, with each of these windows facing the corresponding space for each of the objects which are to be carried. The sides of these windows adjacent to the strips are of slightly curvilinear or other configuration as is appropriate for the purpose intended. At their terminal sides, the portions 4 extend into a handle portion 7 wherein the hole contains a flap 8 which, in the fully folded position (FIGURE 5) serves for spreading the weight over the hand. Close to their outer extremities, the handles also have a projection or tab 9 at each side, projecting parallel to the side from which these handles project, thereby allowing the handles to be engaged to hold the unit secure as a whole.

To fold the container, the fold line 1 forming the hinge for the two symmetrical sections is raised, the next fold being made at or close to the extremities of the windows 5, at the extremities of the strips 6 adjacent thereto, forming a central spine as apparent from FIGURE 2. In this position, the objects to be carried are placed over the windows 5, and the next fold is made at the other extremities of the strips 6, with the portions 4 then being folded over at the folding line separating them from the portions

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3, thus placing these parts 4 parallel to the windows 5. The handles 7 are then passed through the slot 2 of the fold line or main hinge 1, with the assembly then having the appearance shown in FIGURE 3. The two halves are contiguous and the portions 4 are pressed down so that the handles 7 project above the upper surface of the whole as shown in FIGURE 5, and the handles cannot be pulled back without tearing or deforming their lateral tabs 9.

To place the unit in the display position, or for stacking purposes, these containers may be placed in the positions shown in FIGURES 4, 6 and 7, as well as in that shown in FIGURE 5.

The present invention is not to be limited to the embodiment described and illustrated solely by way of example, and modifications of shape or detail may be incorporated therein without thereby exceeding the scope of the invention.

I claim:

1. In a foldable container for the packaging, storage, display and transport of articles, comprising a single sheet element, a central fold line dividing said sheet element into two equal sections symmetrical with respect to said central fold line, said central fold line serving as a hinge and having a slot extending along a portion of its length, means dividing each symmetrical section into two portions of different dimensions with each portion of greater dimensions being adjacent said central fold line, each portion of

greater dimensions having a plurality of windows therein separated from each other by relatively narrow strips of the material of said sheet element with each window corresponding to one of the articles to be housed in the container, said strips serving as securing means for the articles with the articles being readily visible through the windows, each portion of lesser dimensions having a handle component extending from its free end, said handle components passing through said slot and projecting beyond one of said portions of greater dimensions when the sheet element is folded to form the container, and each handle component being provided with a tab projecting at each side parallel to, but spaced from the free end of the portion of lesser dimensions serving to prevent retraction of the handle components from their projected position by engaging the ends of said slot.

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