July 16, 1968 F. R. SCHULZ 3,392,870

CONTAINER WITH DOUBLE ACTING HINGE CLOSURE

Filed Oct. 20, 1965 3 Sheets-Sheet 1

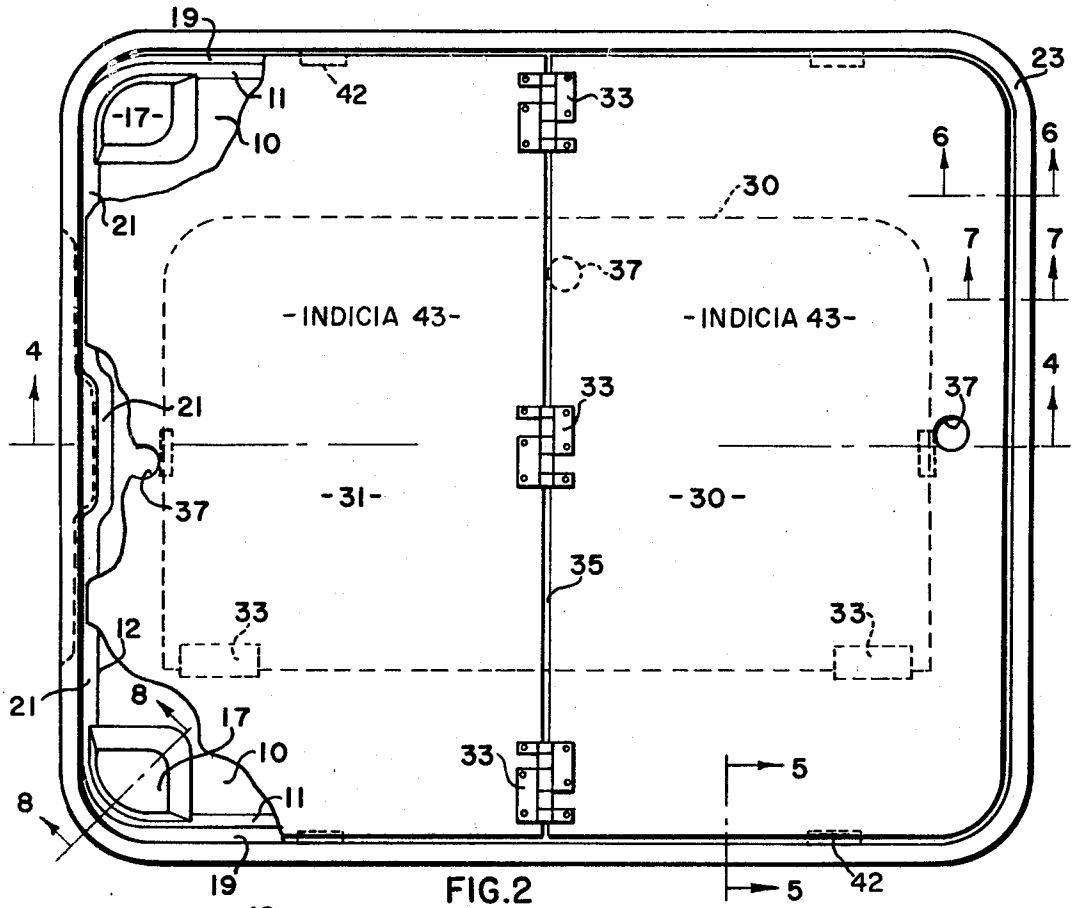

FIG.2

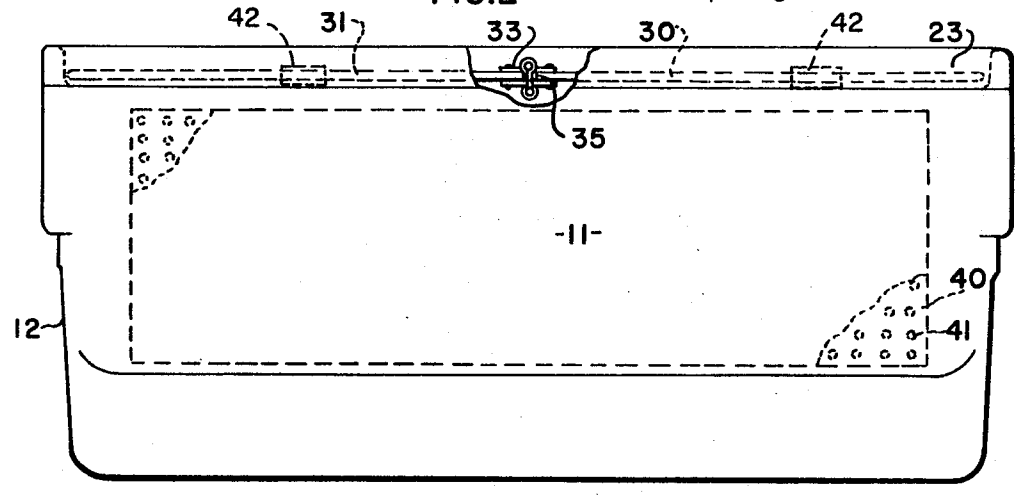

FIG.1

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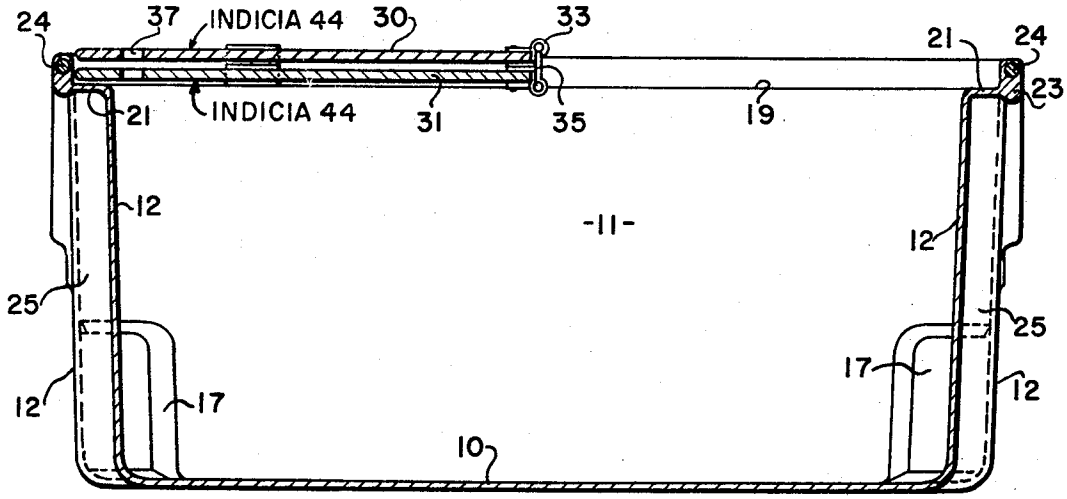

FIG. 4

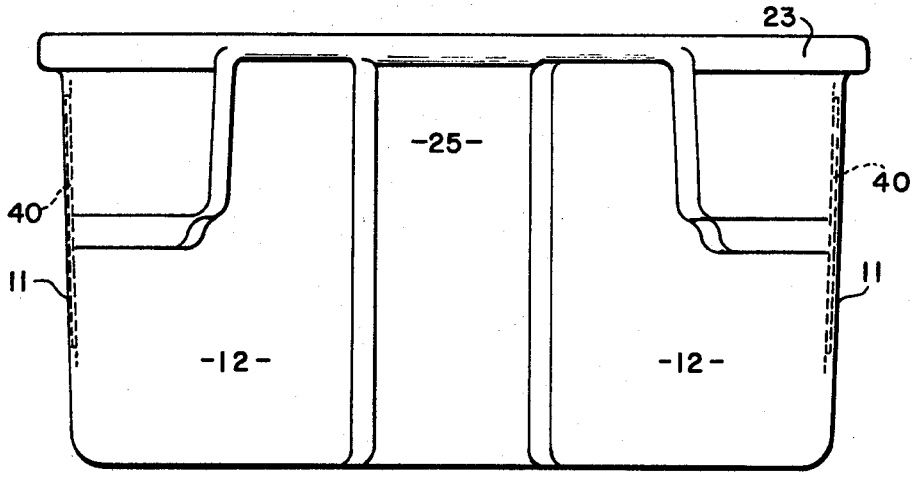

FIG. 3

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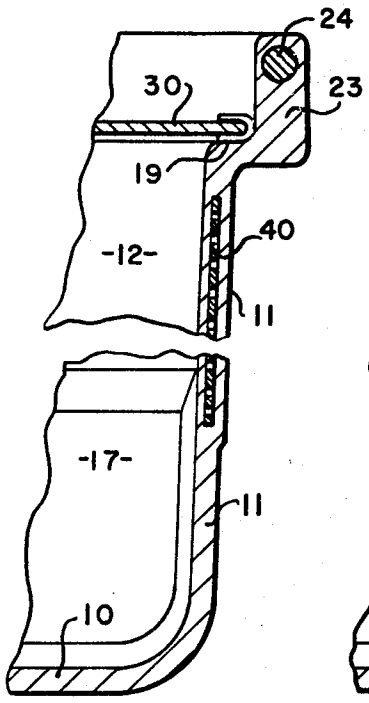

FIG. 5

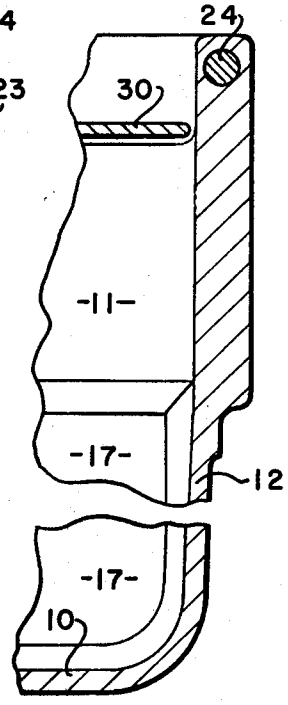

FIG.6

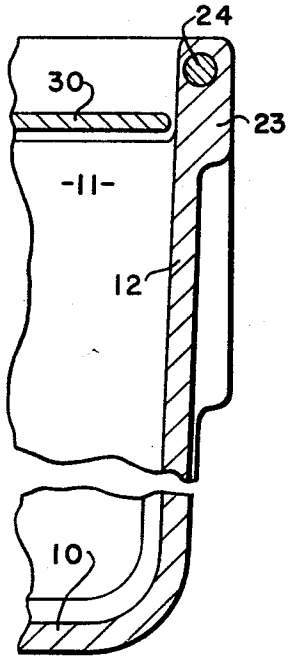

FIG. 7

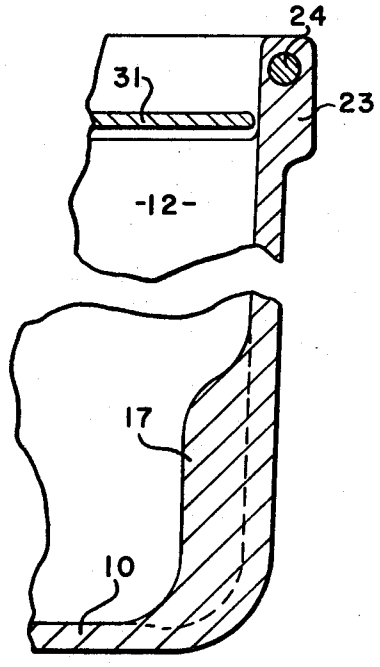

FIG. 8

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3,392,870

CONTAINER WITH DOUBLE ACTING HINGE CLOSURE

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Filed Oct. 20, 1965, Ser. No. 498,884
3 Claims. (Cl. 220—32)

ABSTRACT OF THE DISCLOSURE

A container structure, an open top boxlike body member of rectangular form having a shouldered recess at the top, a cover closure positioned on the shoulders and consisting of at least two panels extending transversely of the body member and joined together by double acting hinge members whereby, regardless of which cover surface is up, one panel may be folded over the other to provide access to the box member. Means is provided for detachably holding the cover panels on the box member.

This invention has to do with a container structure for the transportation of articles, particularly for transporting articles in hospitals.

The invention has as an object a one-piece container, preferably molded from plastic material, and having a cover or top closure consisting of two or more panel members, which are joined together by double-acting hinge members, whereby the members may be folded over each other to provide access to either end portion of the container. The cover is frictionally secured to the container, whereby the entire cover may be readily removed from the container, and when one panel of the removed cover is folded over another panel, the folded cover may be placed within the container on the bottom thereof.

The panels forming the cover member may be coated with different colors, or otherwise provided with indicia, for indicating the contents or condition of the contents of the container. For example, when the container is used in hospital service, one side surface of the cover may be colored white to indicate that the contents in the container are in sterile condition and the opposite side of the cover may be colored yellow to indicate, when faced upwardly, that the contents of the container have been contaminated.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is made to the accompanying drawings in which like characters designate corresponding parts in all the views.

In the drawings

FIGURE 1 is a side elevational view of a container embodying my invention.

FIGURE 2 is a top plan view of the container with portions of the cover broken away.

FIGURE 3 is an end elevational view.

FIGURE 4 is a view taken on line 4—4, FIGURE 2, showing one panel member of the cover folded over the other panel member.

FIGURE 5 is an enlarged sectional view taken on line 5—5, FIGURE 2.

FIGURE 6 is an enlarged sectional view taken on line 6—6, FIGURE 2.

FIGURE 7 is an enlarged sectional view taken on line 7—7, FIGURE 2.

FIGURE 8 is an enlarged sectional view taken on line 8—8, FIGURE 2.

The body portion of the container is preferably molded from suitable plastic material capable of withstanding

sterilization. The container has a flat bottom wall **10**, and side walls **11** and **12**. The container is of rectangular form, see FIGURE 2, the walls **11** having a greater lengthwise dimension than the walls **12**. The walls **11**, **12**, taper slightly, diverging upwardly, to provide for the nesting of the containers in stack formation. The container is formed, in the lower portion of each corner, with an inwardly extending thickened portion **17**, see FIGURES 2 and 8, these thickened portions providing for reinforcement of the bottom corners of the container.

The side walls **11** are formed at their upper edges with shoulders **19**, and the walls **12** are formed in their central portion with inwardly extending shoulders **21**. The top edge of the container is formed with a continuous perimetric upstanding flange **23** in which there is preferably encased a reinforcing rod **24**. The flange **23** extends outwardly from the top edges of the side walls **11**, see FIGURE 5, permitting the container to be supported drawer-fashion on runners in storage cabinets and transport trucks. The central portion of each of the walls **12** is displaced inwardly to form a vertically disposed outwardly facing recess **25**, see FIGURES 3 and 4. The top of the recesses **25** terminates below the shoulders **21**. The recesses **25**, in conjunction with the shoulders **21**, formed in the walls **12**, provide handle grips for the lifting of the filled container when the cover is applied thereto.

The container is provided with a cover closure in the form of a plurality of flat panels. In the arrangement shown, there are two panels **30**, **31**, joined together at like edges by double-acting hinge members **33**. The joint, indicated at **35**, of the panels **30**, **31** extends transversely of the lengthwise dimension of the container. With the pair of covers employed, this joint is medial of the walls **12**.

The double-acting hinge members **33** permit either one of the cover panels **30**, **31**, to be folded on top of the other panel and this regardless of which surface of the cover closure is faced upwardly. Referring to FIGURE 2, the panel members **30**, **31**, when in flat, co-planar form, are dimensioned comparable with the container, and when positioned on the shoulders **19**, **21**, form a complete closure for the container. The panels **30**, **31**, are formed adjacent their free edges with access openings **37** in which the finger may be inserted for manipulating the cover panels. Inasmuch as the container is formed with a greater lengthwise dimension than crosswise and so proportioned, the cover closure, when one panel is folded on top of the other, may be positioned on the bottom wall of the container, as indicated by the dotted outline in FIGURE 2.

The flat panels **30**, **31**, making up the cover closure, may be printed, or otherwise supplied, with indicia as indicated at **43** on one surface of the cover, and at **44** on the opposite side of the cover, to indicate the contents of the container or the condition of the contents, as previously stated.

One or more plates **40** of magnetizable material are embedded within the thickness of the side walls **11**, see FIGURES 1 and 5. Selected small areas of the plate, as indicated by the dots **41**, are magnetized to provide a code destination for the container when it is moved automatically by conveyor means. These areas are de-magnetized after the code has served its purpose. The means for detachably retaining the panels on the box shoulders may consist of small rubber blocks **42** fixed to the opposite side edges of the panels for engaging the flange **23**.

What I claim is:

1. A container structure comprising an open top boxlike body member of rectangular form having a lengthwise dimension exceeding the widthwise dimension, the top edge of the side walls of said box member being formed with cover supporting shoulders, an upstanding

flange spaced outwardly from said shoulders, a cover member positioned on said shoulders within said flange to form a closure for the open top of the box member, said cover member consisting of a pair of panels extending transversely of the box member and being joined together in side by side relation, said panels being provided with indicia on one side surface for indicating the condition of the contents of the box member, and on the opposite side with other indicia indicating a different condition of the contents of the box member, said panels being joined together by double acting hinge members whereby, regardless which surface of the cover member is up, one panel member may be folded flat over the other panel member to provide access to either end portion of the box member, and cover retaining means cooperable with each of said panels and said box member for detachably retaining said panels on said shoulders.

2. A container structure as set forth in claim **1**, wherein each panel member is of a dimension in a direction lengthwise of the box member less than the width of the box member.

3. A container structure as set forth in claim **1**, wherein the thickness of said panels is less than the height of said flange.

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