

July 16, 1935.

R. A. FROEHLIG

2,008,443

CONTAINER

Filed Aug. 22, 1932

2 Sheets-Sheet 1

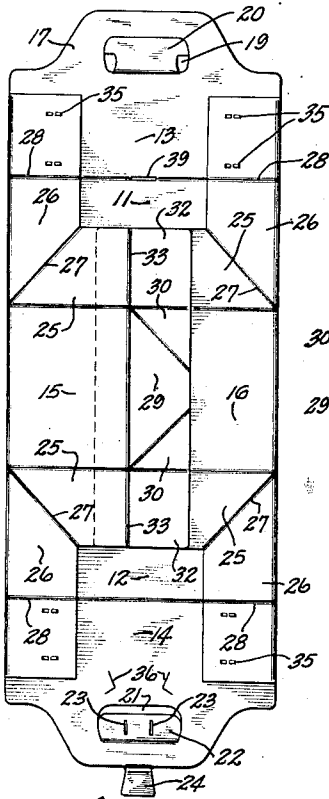


Fig. 2.

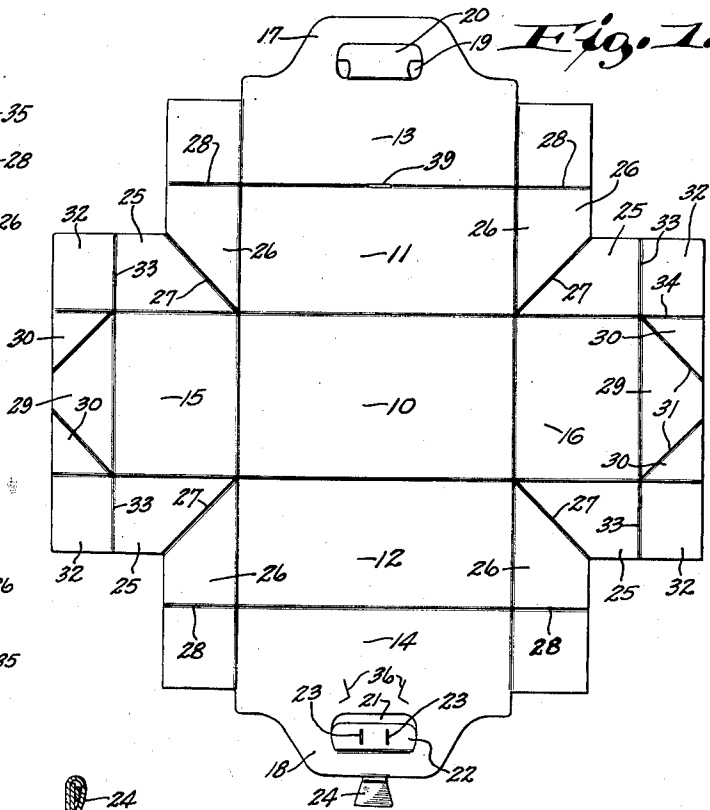
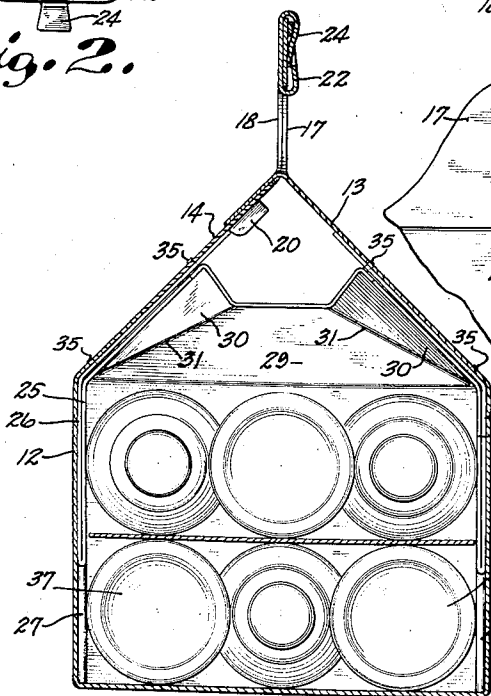


Fig. 3.

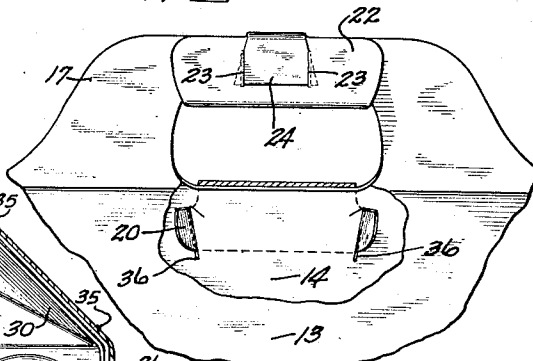


Fig. 4.

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2 Sheets-Sheet 2

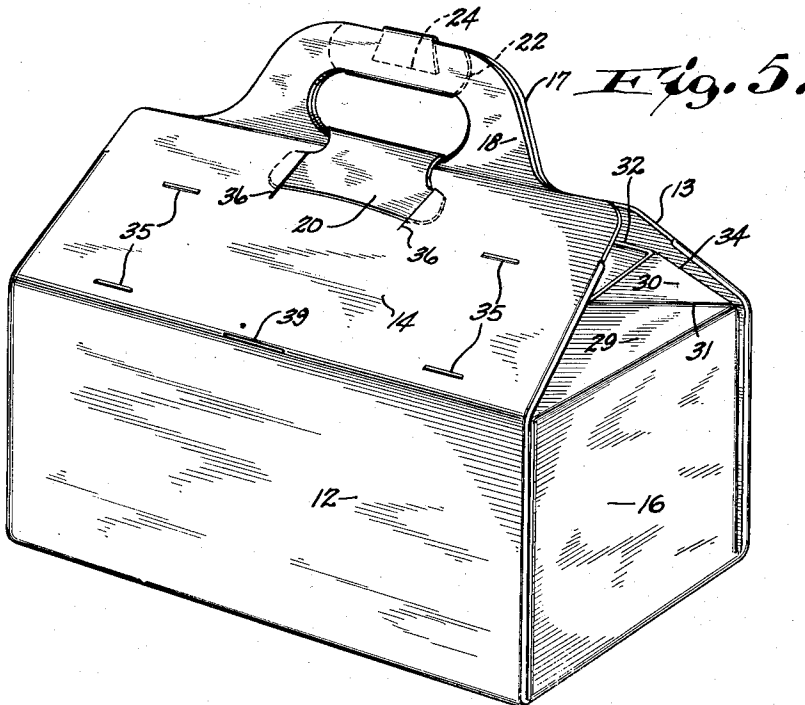
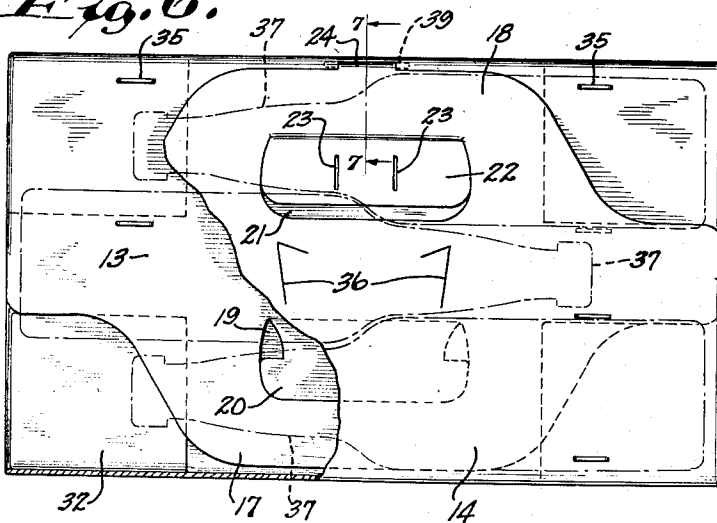
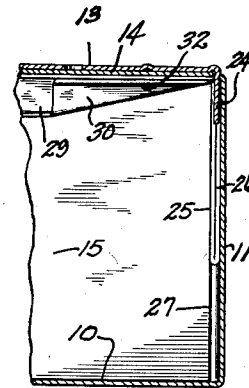


*Fig. 6.*



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## UNITED STATES PATENT OFFICE

2,008,443

## CONTAINER

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Application August 22, 1932, Serial No. 629,784

3 Claims. (Cl. 229—52)

This invention relates in general to improvements in containers, and more particularly to collapsible containers for bottled goods.

It is one of the objects of this invention to provide an improved container which can be shipped in flat condition, and which is so constructed that it can be quickly converted into assembled condition by a simple movement of the free ends toward one another.

A more specific object of the invention is to provide a collapsible container, which in flat condition, has parts permanently secured to one another to cause automatic assembly into proper form when the free ends are moved toward one another.

A further object of the invention is to provide a container which may be assembled either into rectangular box formation for economical packing in larger containers, or in the form of an individual satchel-like carrying case.

A further object of the invention is to provide a container which is particularly adapted to receive and hold in a compact manner six bottles of a size used for malt beverages.

A further object of the invention is to provide a container which is simple in construction, inexpensive to manufacture, neat in appearance, and well adapted for the purpose described.

With the above and other objects in view, the invention consists of the improved container and all its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawings illustrating one complete embodiment of the preferred form of the invention, in which the same reference numerals designate the same parts in all of the views:

Fig. 1 is a plan view showing the cut and scored blank;

Fig. 2 is a plan view of the completed container in flat condition ready for shipment;

Fig. 3 is a cross sectional view showing the container assembled in the form of a carrying case;

Fig. 4 is a fragmentary detail view illustrating the interlocking construction for maintaining the container in carrying case form, parts being broken away;

Fig. 5 is a perspective view of the container in carrying case form;

Fig. 6 is a plan view illustrating the container assembled in rectangular box formation; and

Fig. 7 is a fragmentary sectional view taken on line 7—7 of Fig. 6.

Referring, first, more particularly to Fig. 1 of

the drawings, it will be seen that the container is cut from a single sheet of fiberboard, cardboard, or the like, and suitably scored, as indicated in Fig. 1, to provide a bottom section 10, side sections 11 and 12 foldably connected to the bottom section, top sections 13 and 14 foldably connected to the side sections 11 and 12, and end sections 15 and 16 foldably connected to the ends of the bottom section 10.

The free end of each of the sections 13 and 14 is cut into handle formation, as at 17 and 18, and the material cut from the handle opening 19 in the section 13 is left connected to the lower edge of the opening and is cut to provide a tongue 20. The material from which the handle opening 21 was cut is left connected to the upper edge of said opening to provide a flap 22, and said flap is formed with spaced slits 23 therein for a purpose to be hereinafter described. In addition, the outer edge of the handle portion 18 may be provided with a projecting tongue 24 having outwardly diverging sides.

The side sections 11 and 12 are connected on each side with the end sections 15 and 16 by means of L-shaped flaps, each of said flaps comprising a section 25 and a section 26 extending at right angles to the section 25 and connected to the latter by an oblique line of scoring 27. Each of the flap sections 26 extends along a portion of the side edge of the adjacent top sections 13 and 14, and is provided with a transverse line of scoring 28 which is in line with the line of fold between the top section and the adjacent side section. The end sections 15 and 16 are formed with extensions which each comprise a trapezium section 29 and triangular sections 30 connected by oblique lines of scoring 31 with the non-parallel sides of the trapezium section. Each of the triangular sections 30 is further connected with the adjacent flap section 25 by a rectangular corner piece 32, said corner piece being foldable with respect to the section 25 and with respect to the triangular section 30 on lines of scoring 33 and 34 respectively.

The blank thus cut and scored as above described and as shown in Fig. 1, is then folded to the position shown in Fig. 2, and the ends of the flap sections 26 are secured to the top sections 13 and 14 by means of stapling or the like, as at 35. The containers are then ready to be shipped in stacks to the user. When they are to be assembled, the handle parts 17 and 18 are moved toward one another, and due to the stapling 35 and to the formation of the lines of scoring, the ends and flap portions of the container will auto-

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 matically move to assembled position shown in Figs. 3 and 5. During the first part of the movement of the handles toward one another, there will be folding along the oblique lines of scoring 27 until the parts 25 and 26 are moved into alignment with one another. Then, as the handles are brought into contact, there will be a folding on the lines of scoring 31 between the triangular sections 30 and the trapezium sections 29, and there will be a folding on the lines of scoring 33 to bring the corner pieces 32 into parallelism with and into contact with the top sections 13 and 14, as shown in Figs. 3 and 5. Next, the tongue 20 in connection with the handle part 17 is pushed through the opening 21 of the handle part 18, and its ends are caused to engage with angular slits 36 in the manner illustrated in Figs. 4 and 5 to hold the two handle sections in registration with one another. The flap 22 in the opening 21 of the handle section 18 may then be bent upwardly adjacent the outer side of the handle section 17, and the extension tongue 24 bent over and engaged with the slits 23 in the manner clearly shown in Figs. 4 and 5.

By referring to Fig. 3 it will be seen that the container is constructed to hold two layers of bottles 37 of the size used for malt beverages, the layers being preferably separated by a partition 38.

The container may also be assembled in rectangular box formation instead of in carrying case form, by bringing the top sections down into parallelism with the bottom, as indicated in Figs. 6 and 7, and by causing the extension tongue 24 to engage a slit 39 adjacent the line of fold between the top section 13 and the side section 11.

With this type of container, bottling concerns may pack six bottles of their goods in each individual container, assembling the containers in rectangular box-like formation, as shown in Fig. 6, and a group of the individual containers may then be compactly arranged in a larger shipping case. The retailer can then sell the bottled goods from the individual containers, and if a customer desires six bottles, one of the individual containers can be converted from the rectangular box-like formation of Fig. 6 to the carrying case condition shown in Fig. 5, and the purchaser will then have a convenient receptacle for transporting the bottles. The carrying case also furnishes a very convenient method of carrying bottled goods on picnics or the like.

It is to be emphasized that the stapling shown at 35 in the drawing of parts of the container in partially folded condition is what makes it possible for the container to automatically assemble itself when the handles are pulled toward one another. This is an extremely important feature, as it makes it impossible for the containers to be assembled in an improper manner. It is further to be emphasized that when the container is assembled in the carrying case form, that the top sections 13 and 14 yieldingly engage and contact with the corner pieces 32, as illustrated in Figs. 3 and 4, and said corner pieces therefore tend to provide a relatively tight closure at each corner to prevent displacement of the end sec-

tions, and to yieldingly support the cover sections and hold them in an angular position with respect to the body.

Where it is not desired to have the container adapted for assembly in rectangular box formation, the lines of scoring between the top sections 13 and 14 and the side sections 11 and 12 may be omitted. When this is done, the assembly will be identical to that illustrated in Fig. 5, except that the sides and top sections will be integral and will curve into position around the ends.

Other changes and modifications may be made without departing from the spirit of the invention, and all of such changes are contemplated as may come within the scope of the claims.

What I claim is:

1. A container comprising a bottom section, side sections connected to opposite side edges of said bottom section, end sections connected to opposite end edges of said bottom section, a top section foldably connected to each side section, said top sections being formed with cooperating extensions positionable in parallel vertical position to provide a carrying handle when said top sections are in angular position with respect to one another, and means engageable with the handle extensions for detachably locking said handle extensions juxtaposed in said parallel position.

2. A container comprising a bottom section, side sections connected to opposite side edges of said bottom section, end sections connected to opposite end edges of said bottom section, a top section foldably connected to each side section, said top sections being formed with cooperating apertured extensions positionable in parallel vertical position to provide a carrying handle when said top sections are in angular position with respect to one another, and means for detachably locking said handle extensions in said position comprising a flap having slits therein foldable from the aperture of one of said extensions through the aperture of the other of said extensions, and means on one of said extensions engageable with said slits to lock said flap in position.

3. A container comprising a bottom section, side sections connected to opposite side edges of said bottom section, end sections connected to opposite end edges of said bottom section, a top section foldably connected to each side section, said top sections being formed with cooperating apertured extensions positionable in parallel vertical position to provide a carrying handle when said top sections are in angular position with respect to one another, a flap foldable from the upper edge of the aperture of one of said extensions through the aperture of the other of said extensions, means cooperable with said flap to detachably lock the same in said folded position, a flap foldable from the lower edge of the second-mentioned aperture through the first-mentioned aperture to a position adjacent one of the angular top sections, and means cooperable with said second flap to lock the same in folded position.

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