

Jan. 23, 1962

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3,018,030

CONTAINERS

Filed June 10, 1959

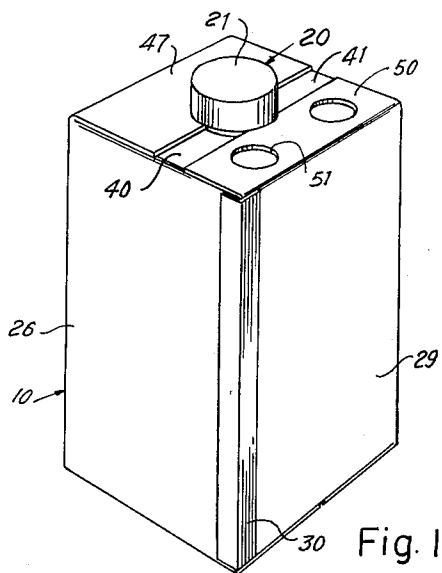


Fig. 1

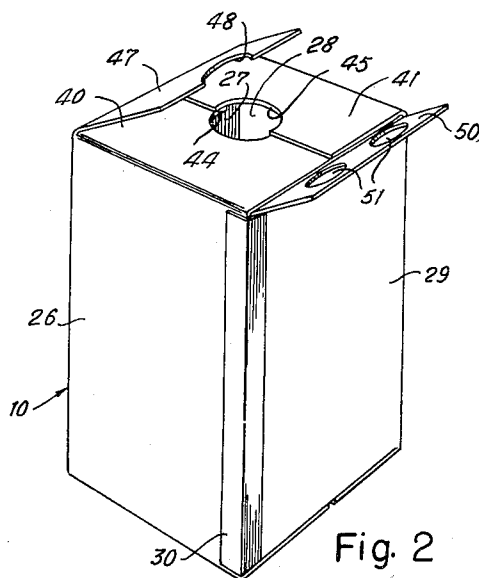


Fig. 2

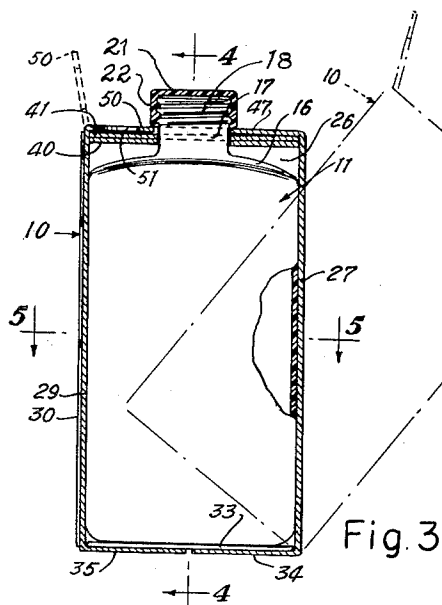


Fig. 3

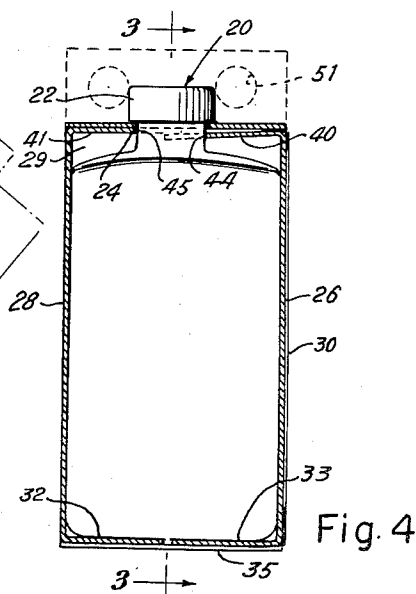


Fig. 4

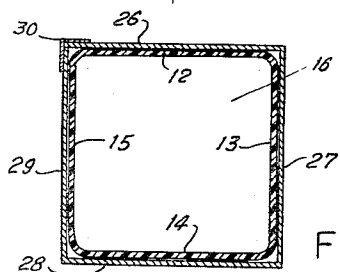


Fig. 5

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3,018,030

CONTAINERS

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Filed June 10, 1959, Ser. No. 819,362

3 Claims. (Cl. 229-39)

This invention relates to containers and more particularly to a container for receptacles and to the combination of a container and a receptacle.

An object of this invention is to provide a new and improved container for receptacles such as carboys or the like.

Another object is to provide a container for carboys which is provided with a flap having finger holes to facilitate the pouring of liquids from the carboy by providing easily engageable means for tilting the carboy.

Still another object is to provide a container for carboys wherein the flap provided with the finger holes is held in closed position by the cap of the carboy when the cap is positioned on the carboy to close the dispensing aperture thereof.

A further object is to provide a container for carboys or the like, formed of corrugated paper or the like, whose upper end is formed of flaps intumed from the upper ends of the sides of the container and wherein at least some of the inwardly turned flaps are provided with arcuate recesses for receiving the neck of the carboy.

Still another object is to provide a container for carboys or the like, formed of corrugated paper or the like, whose end is formed of flaps intumed from the upper ends of the side of the container and wherein at least some of the inwardly turned flaps are provided with arcuate recesses for receiving the neck of the carboy and one flap has an inner edge adjacent the neck of the carboy whereby the flaps may be held in closed position by the cap of the carboy which is adapted to contact the upper surfaces of the two upper flaps to prevent their displacement.

A still further object of the invention is to provide a container for carboys or the like having its upper end closed by inwardly turned flaps extending from the side of the container, at least one of the upper flaps having a recess for receiving the neck of the carboy and being adapted to frictionally engage the neck of the carboy whereby three of the flaps are held in closed position even when the cap is removed from the neck of the carboy.

A further object is to provide a container for carboys or the like, formed of corrugated paper or the like, whose upper end is formed of flaps intumed from the upper ends of the sides of the container and wherein at least some of the inwardly turned flaps are provided with arcuate recesses for receiving the neck of the carboy and one flap is provided with a pair of finger holes whereby the container and the carboy may be easily tilted to dispense liquids therefrom when the cap is removed from the threaded neck of the carboy and the flap with the finger holes is flexed away from the neck of the carboy.

Another object is to provide a container for carboys having intumed upper flaps secured to one another and engaging the carboy to prevent its displacement from the container.

A still further object is to provide a carboy and a container enclosing the carboy wherein the container is provided with flap means for facilitating dispensing of fluid from the carboy.

Additional objects and advantages of the invention will be readily apparent from the reading of the following description of a device constructed in accordance with the invention, and reference to the accompanying drawings thereof, wherein:

FIGURE 1 is a perspective view of the container and

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the carboy showing the closure cap of the carboy in closing position on the neck of the carboy;

FIGURE 2 is a perspective view of the container illustrated in FIGURE 1 showing an upper pair of flaps in partly open positions;

FIGURE 3 is a vertical sectional view taken on line 3-3 of FIGURE 4;

FIGURE 4 is a vertical sectional view taken on line 4-4 of FIGURE 3; and

FIGURE 5 is a cross-sectional view taken on line 5-5 of FIGURE 3.

Referring now to the drawing, the container 10, there illustrated, is for a receptacle or carboy 11 having substantially flat sides 12, 13, 14 and 15, a bottom wall 16 integral with the lower ends of the sides and an upper wall 16 integral with the upper ends of the sides and provided with a cylindrical neck 17. The neck 17 is externally threaded at 18 whereby a cap 20 may be threaded thereon. The cap 20 of course has a disk top wall 21 and a dependent annular internally threaded flange 22 which provides a downwardly facing annular shoulder 24 disposed externally of the neck 17.

The container 10 is formed of a single piece or blank folded to provide vertical side walls 23, 27, 28 and 29 which are adapted to abut the sides 12, 13, 14 and 15, respectively, of the carboy. The adjacent side edge portions of the sides 26 and 29 of the container are secured by a strip of adhesive tape 30. The bottom of the container is formed by the flaps 32 and 33 folded inwardly from the sides 14 and 26 which overlie the flaps 34 and 35 folded inwardly from the side walls 27 and 29 and which extend beneath the flaps 32 and 33. The flaps 34 and 35 are secured to the flaps 32 and 33 by any suitable means, as by adhesive or by staples, whereby these bottom flaps of the side walls of the container are held against movement relative to the side walls and thus will support the bottom wall 16 of the carboy.

The upper ends of the side walls 26 and 28 of the container are provided with infolded upper flaps 40 and 41 which extend past the mid line of the side walls 27 and 29 so that adjacent free end portions thereof overlap. The upper flaps 40 and 41 of the side walls 26 and 28 of the container are provided with arcuate recesses 44 and 45 in which the neck 17 of the carboy is adapted to be received. The arcuate portions of the upper flaps 40 and 41 frictionally engage the neck when they are folded into the closed positions illustrated in FIGURES 1, 3 and 4 so that they tend to remain in such position when the carboy is disposed in the container. If desired, of course, the overlapping end portions of the flaps 40 and 41 may be secured to one another by any suitable means, such as an adhesive or staples.

The side wall 27 has an upper flap 47 which overlies the flaps 40 and 41 and is provided with an arcuate recess 48 in which an adjacent arcuate portion of the neck 17 is receivable. The arcuate edges of the flap 47 defining the slot 48 are also adapted to frictionally engage the neck 17 of the carboy whereby the flap 47 also tends to remain in its closed or folded position illustrated in FIGURES 1, 3 and 4 due to the frictional engagement. If desired, the flap 47 may be secured to the flaps 40 and 41 by an adhesive or by staples.

The external threads of the neck may also protrude outwardly of the arcuate recesses of the flaps 41 and 47 to thus prevent their upward displacement from their closed positions, the flaps being sufficiently flexible to permit flexing thereof to permit their passage past the external threads of the carboy during their movement from their open positions downwardly to their closed positions. If the threads 18 of the neck 17 of the carboy extend outwardly of the neck a sufficient distance, the frictional engagement between the arcuate

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edges defining the recesses 44, 25 and 48 is not needed and may be dispensed with.

The upper flap 50 of the side wall 29 is of such length that when it is folded to the closed position illustrated in FIGURES 1, 3 and 4, its inner edge is adjacent but not engaging the neck 17 so that the flap 50 is free to bend or move upwardly therefrom since it is not in frictional engagement with the neck and will not engage the external threads 18 of the carboy upon such upward movement. The flap 50 is provided with a pair of finger holes 51 in which fingers may be inserted when the flap 50 is bent outwardly to the broken line position indicated in FIGURES 3 and 4. The finger hole flap 50, when it is in the closed position illustrated in FIGURES 1, 3 and 4 extends beneath the downwardly facing shoulder 24 of the cap whereby the cap retains the flap 50 in the closed position when the carboy cap is screwed on the threaded neck of the carboy. The annular downwardly facing shoulder 24 of course also extends above and engages the flap 47 to also secure it in the closed position so that the carboy is retained in the carton against displacement therefrom in any manner when the cap 20 is in position on the neck.

When it is desired to dispense fluid, such as acids or the like, from the carboy, the cap 20 is unscrewed from the neck 17 and the finger hole flap is pivoted upwardly and outwardly whereby the person who is handling the carboy may insert his fingers into the finger holes 51 of the finger hole flap 50 and tilt it toward the position indicated by the broken lines in FIGURE 3 in order to dispense the liquid through the neck 17 of the carboy. The flap 47 of course is in frictional engagement with the neck 17 or with the external threads of the neck so that it does not tend to move outwardly even when the cap 20 is unscrewed from the neck 47. Similarly, the flaps 40 and 41 also tend to remain in the closed positions. Of course, if flaps 40, 41 and 47 are secured to one another, the carboy is held in the container even if the neck does not frictionally engage the flaps at their recesses. As a result, the container and carboy may be tilted with ease to dispense the fluid therefrom with no danger of the fluid coming into contact with the hands of the operator since the flap now extends substantially perpendicularly outwardly from the wall 29 of the container so that the fingers are remote from the neck of the carboy. When the desired quantity of fluid has been dispensed from the carboy it is again moved to an upright position, the finger hole flap 50 is folded back to the closed position adjacent the neck 17 of the carboy and the cap 20 is unscrewed on the neck to again hold the flap 50 in the closed position illustrated in FIGURES 1, 3 and 4.

It will now be seen that a new and improved container for a carboy has been illustrated and described which permits easy tilting of the carboy without any danger that the fluid may come in contact with the fingers or hands of the person dispensing the fluid.

It will further be seen that the container includes a bottom formed of flaps extending inwardly from the four rectangularly disposed side walls thereof and that the upper end is formed of similar flaps extending from the upper ends of the side walls.

It will further be seen that at least some of the upper flaps are provided with arcuate recesses whereby the flaps may extend at least partially about the neck 17 of a carboy disposed in the container to be held, either by friction or by engagement with exteriorly extending threads of the neck, against movement from their closed positions wherein they extend substantially perpendicularly inwardly from the side walls.

It will further be seen that one of the upper flaps which extends inwardly from a side wall is of such length that it does not engage the neck of the carboy but extends adjacent thereto when in closed position and

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that it is retained in the closed position wherein it extends substantially perpendicularly to the side walls of the container by its engagement with the downwardly facing shoulder of the cap threaded on the neck of the carboy.

It will further be seen that the flap which does not engage the neck of the carboy is provided with finger holes whereby the carboy and the container may easily be tilted by an operator who inserts his fingers into the finger holes when the finger hole flap 50 is bent outwardly from its wall after the cap 20 has been removed from the neck of the carboy.

It will further be seen that the container and carboy form an easily transportable unit and that the container 29 forms a rigid protective member for the carboy which may be made of a flexible plastic. The container may also be used with glass carboys in which event the container 10 protects the glass from blows or shocks which might tend to break it.

It will further be seen that the inwardly turned lower bottom flaps of the container are secured to one another to form a bottom which prevents downward displacement of the carboy relative to the container.

The foregoing description of the invention is explanatory only, and changes in the details of the construction illustrated may be made by those skilled in the art, within the scope of the appended claims, without departing from the spirit of the invention.

What is claimed and desired to be secured by Letters Patent is:

1. A container including: a bottom and side walls extending upwardly from the bottom and joined along their lateral edges, said side walls having upper flaps at their upper ends spaced from the bottom and separately foldable inwardly in a substantially common plane parallel to the bottom to extend inwardly and substantially perpendicularly from the side walls, two opposed flaps of said flaps being of lengths to overlap the inner end portions of each other when extending inwardly, each of said two opposed flaps having a recess in its inner edge of a depth greater than the lengths of the overlapped end portions whereby said recesses are disposed to receive the neck of a receptacle deposited in the carboy, one of the other of said flaps extending inwardly from the side wall a distance not greater than half the distance to the opposite side wall of the container and having an arcuate recess in its inner edge for receiving and engaging the neck of a receptacle adapted to be received in the carton, another of said flaps being of a dimension less than half the distance to the opposite side wall and having finger hole means formed therein, said inner edge of the another of said flaps being disposed adjacent the neck of a receptacle adapted to be received in the carton when extending inwardly from the side wall and being pivotal outwardly of its side wall.

2. A container including: a bottom and side walls extending upwardly from the bottom and joined along their vertical adjacent edges, said side walls having upper flaps spaced from the bottom and foldable inwardly in a substantially common plane substantially parallel to the bottom to extend inwardly from and substantially perpendicularly to the side walls; one pair of opposed flaps being of dimensions to extend inwardly toward each other more than half the distance between the side walls from which said opposed flaps extend, whereby said opposed flaps have end portions which overlap each other, said opposed flaps each having an arcuate recess in its inner end, and the depth of the recess being greater than the length of the overlapped end portion, said recesses in said opposed flaps being positioned in such a manner that when the flaps are infolded and overlapping, the recesses define a circular aperture in the upper end of the container; a second pair of opposed flaps each being of a dimension not greater than one-half the distance from the wall to which said flap is attached to the opposite wall,

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whereby said second pair of opposed flaps do not overlap when infolded, one of said second pair of opposed flaps having an arcuate recess in its inner edge disposed in such a position that when the flap is infolded the recess thereof overlies and is coextensive with a portion of the circular aperture formed by the recesses of the overlapping flaps, the other flap of said second pair of opposed flaps being of a dimension less than one-half the distance from the wall to which it is attached to the opposite wall, whereby said other flap does not contact the said one flap of said second pair of flaps and the inner edge of said other flap is disposed substantially tangentially of the aperture formed by the recesses of the overlapping flaps.

3. A container including: a bottom and side walls extending upwardly from the bottom and joined along their vertical adjacent edges, said side walls having upper flaps spaced from the bottom and foldable inwardly in a substantially common plane substantially parallel to the bottom to extend inwardly from and substantially perpendicularly to the side walls; one pair of opposed flaps being of dimensions to extend inwardly toward each other more than half the distance between the side walls from which said opposed flaps extend, whereby said opposed flaps have end portions which overlap each other, said opposed flaps each having an arcuate recess in its inner end, and the depth of the recess being greater than the length of the overlapped end portion, said recesses in said opposed flaps being positioned in such a manner that when the flaps are infolded and overlapping, the recesses define a circular aperture in the upper end of the con-

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tainer; a second pair of opposed flaps each being of a dimension not greater than one-half the distance from the wall to which said flap is attached to the opposite wall, whereby said second pair of opposed flaps do not overlap when infolded, one of said second pair of opposed flaps having an arcuate recess in its inner edge disposed in such a position that when the flap is infolded the recess thereof overlies and is coextensive with a portion of the circular aperture formed by the recesses of the overlapping flaps, the other flap of said second pair of opposed flaps being of a dimension less than one-half the distance from the wall to which it is attached to the opposite wall, whereby said other flap does not contact the said one flap of said second pair of flaps and the inner edge of said other flap is disposed substantially tangentially of the aperture formed by the recesses of the overlapping flaps, said other flap being provided with a finger hole.

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