# United States Patent

**Thorpe et al.**

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## [54] STORAGE CONTAINERS FOR USE IN MARINE CRAFT


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[51] **Int. Cl.** ..... **B65d 25/24**

[58] **Field of Search** ..... 220/18, 63, 24.2, 24.3, 24, 220/41; 43/54.5; 114/85, 56, 18, 66; 9/6, 1



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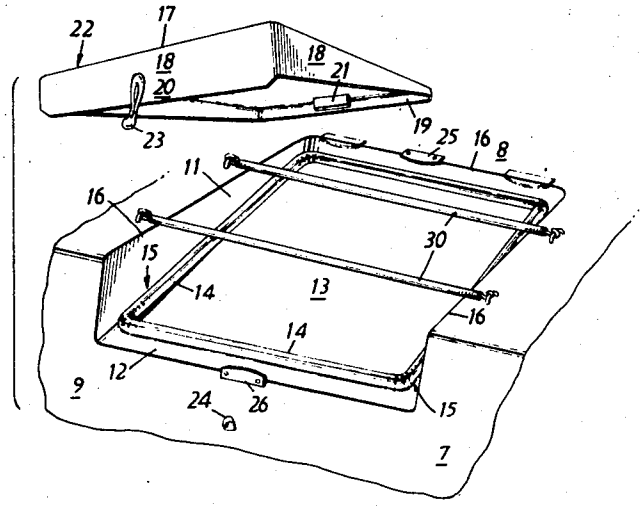
[57] **ABSTRACT**

The invention deals generally with container structures and concerns containers or bins, each bin being insertable in a wall opening, such as an opening of a hull of a marine craft, and having a cover for the bin which seals the bin when in position in the hull opening, as well as when the bin is removed from the same.


**5 Claims, 3 Drawing Figures**



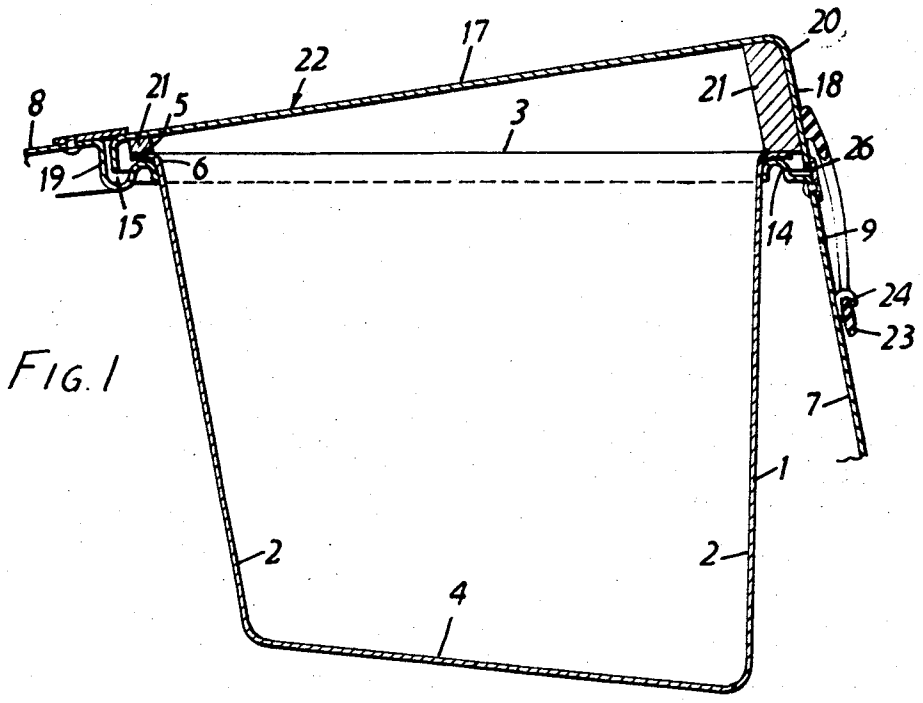



FIG. 1

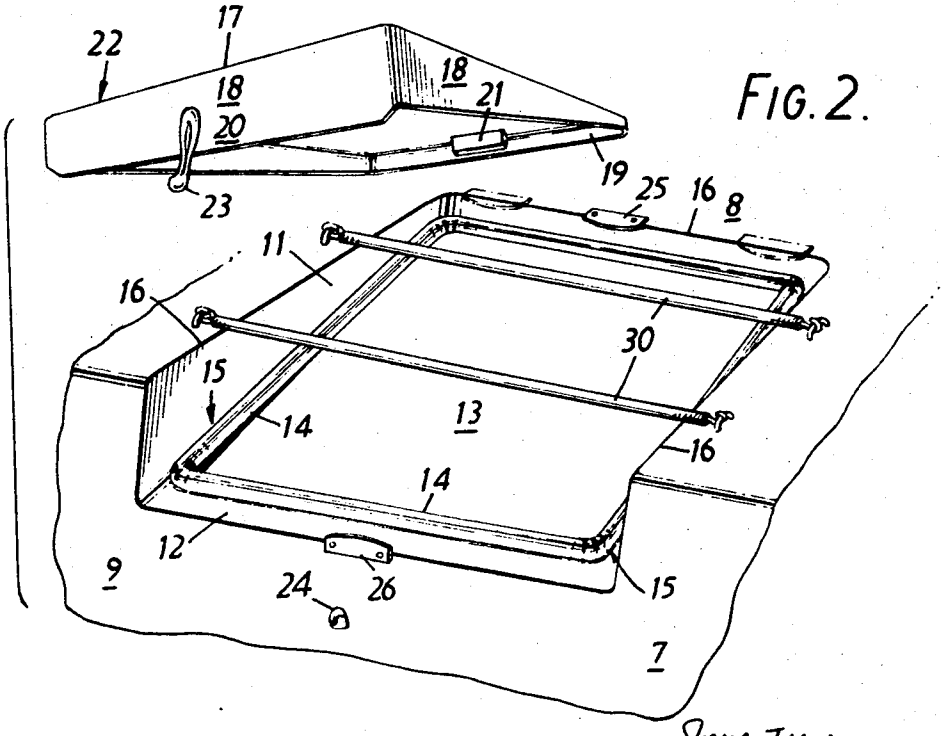



FIG. 2.

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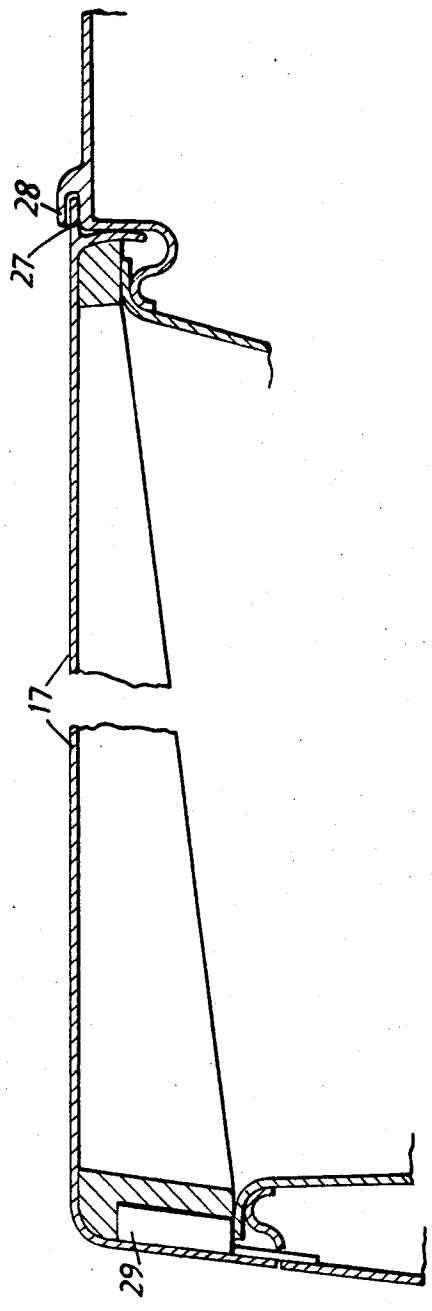


FIG. 3.

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# STORAGE CONTAINERS FOR USE IN MARINE CRAFT

This invention relates to storage containers for use in marine craft and marine craft incorporating such containers.

According to the present invention a storage container for use in an opening in the hull of a marine craft comprises a removable bin, and a cover which extends onto the bin and is adapted to close the opening in the hull when the bin is removed and means for securing the cover in position on the hull of the craft.

Preferably the upper edge of the bin is provided with an outwardly projecting or perimetrical flange, which locates the bin in the opening and which is engageable by the cover.

Thus, the cover not only provides protection for articles carried in the bin but also acts to hold the latter in position.

In a preferred arrangement the upper edges of the bin extend in a plane which is inclined to the horizontal and the cover may be provided with downwardly extending flanges around its edges which are outside the flanges on the bin when the cover is in position.

With this arrangement the depth of the flanges on the cover can vary and means may be provided for maintaining the upper surface of the cover substantially horizontal when it is in place.

The invention also includes a marine craft incorporating a container as set forth above and the arrangement may be such that the flange on the container engages an inclined seating provided on the hull of the craft.

In a preferred arrangement the seating is raised in relation to its immediately surrounding surface so that if water or spray splashes over the hull it will tend to flow away without entering between the cover and the bin flange.

In this arrangement the seating may be provided in a recess in the hull which is closed by the cover when in position and this recess may conveniently be adjacent a bulkhead or substantially vertical wall which, if desired, may be closed by one of the vertical flanges on the cover when in position.

In any case, the base of the container may also be arranged to be inclined to the horizontal so that if water does enter it will tend to flow to one side from where it can be easily drained by means of a hole in the container.

Any suitable material can be used for making the container but it is particularly adapted for manufacture in a plastics material and if the hull of the craft is also made from plastics material a good seal can be obtained between the inclined seating and the flange on the container by bevelling their mating surfaces. The invention may be performed in many ways, but one embodiment will now be described by way of example and with reference to the accompanying drawings in which:

FIG. 1 is a cross-sectional side elevation of a storage container according to the present invention in position in a boat hull,

FIG. 2 is an isometric view of part of a boat hull adapted to receive the container and the container lid, and

FIG. 3 is a cross-sectional side elevation of an alternative construction.

In the arrangement to be described and as shown in the drawings the container for use in an opening in a boat hull comprises a bin 1 made from plastic material or plastic composition which has tapering side walls 2 the upper edge 3 of which extends in a plane which is inclined to the horizontal. Similarly the base 4 is also inclined to the horizontal at the same angle which is approximately 9°. The upper edge 3 of the bin is provided with an outwardly projecting flange 5 which is bevelled at 6 where it joins the side walls 2 of the bin. The overall dimensions of the bin are arranged so that it can carry an outward motor of the folding type and other articles if required such as clothes.

The boat hull which is to receive the bin is provided with an after-deck 8 which extends forwardly toward the stern 7 of the craft to a substantially vertically extending bulkhead 9 which forms the rear of the cockpit 10. Arranged in this after-deck 8 is a recess 11 the surface 12 of which is sunk below the level of the after-deck 8 and which is inclined to the deck and the horizontal so that where the recess emerges through the bulkhead 9 it is deeper than at the point where it is adjacent the stern. Provided in this recess 11 is an opening 13 the dimensions of which are closely related to the dimensions of the upper flange 3 of the bin 1. The edges 14 of the recess 11 immediately adjacent the opening 13 are raised and bevelled to conform with the outer surface of the upper end of the bin so that when it is pushed into the opening 13 it closely engages these surfaces. The marginal edges 14 are raised in relation to their immediately surrounding surfaces so that a channel 15 is produced between the raised seating and three of the outer edges 16 of the recess 11, the other edge of the recess opening through the bulkhead 9 into the cockpit.

In order to close the bin a hatch cover 17 is provided which has downwardly extending flange walls 18 which vary in depth commensurate with the recess side walls, the flange 19 adjacent the after-deck being of less depth than the flange 20 adjacent the cockpit and blocks 21 are provided beneath the cover 17 so that when it is placed in position on the bin 1 as shown in FIG. 1 its upper surface 22 is in line with the after-deck 8 but the blocks 21 engage the flange of the bin. The dimensions of the cover are such that its downwardly extending flange walls 18 extend out-side the flange 14 on the bin 1 when the cover 17 is in position and the cover is connected to the hull by means of a moulded rubber retaining strip 23 at the front which hooks onto a suitable catch 24 on the hull and a retaining clip 25 near the after-deck beneath which it is located, and a location clip 26 on the bulkhead.

With this arrangement therefore the hatch cover 17 not only closes the bin 1 but holds it in position in the hull and the downwardly extending flanges 18 cause any water on the after-deck to flow downwardly into the channel 15 surrounding the seating mounting. As the channels are inclined the water will run down them and into the cockpit 10 from which it can easily be removed.

The storage container provided by the invention can thus be used to carry any required articles, such as an outboard motor or it can be used as a wet-blocker for fish. The water-tight hatch cover 17 ensures that the container will remain reasonably dry due to the water running away down the water way channels. Moreover, the container can be removed from the boat and taken away for filling or emptying. With the container removed the hatch cover 17 can be replaced in position to seal the opening 13.

In another construction as shown in FIG. 3 the hatch cove 17 can be provided with a latching lug or lugs 27 on its stern end which engage beneath a projecting rim 28 at the rear end of the recess 11. The forward end of the cover is provided with a lock indicated at 29 so that when the cover is locked in place it cannot be removed and there are not screws or fittings on its upper surface which can be broken or removed to allow it to be lifted.

Again, the cover could be held in place merely by elastic shock cord 30 extending transversely over it and the clip 25, catch 24 and strop 23 dispensed with. Thus, with this arrangement the rear of the cover can be lifted over the edge 14 and then slid forward without removing the shock cord 30 or disturbing the steering tiller (not shown) for the craft if it extends above the cover. The cover can therefore be opened to provide access whilst the craft is in motion. Alternatively the elastic shock cord can be arranged to extend fore and aft rather than transversely. In this case a single strand is sufficient and is stretched as the cover is moved forward to provide sufficient room to allow the user's hand to be inserted into the container. For complete removal the cover is raised and moved transversely.

In the arrangement described above the boat hull is made from glass fiber so that the seating for the container can be easily moulded to provide a good fit. If required the invention could of course be made from any other material as desired.

It can thus be seen that there has been provided according to the invention in a ship's bulkhead an inclined recess having opposite upwardly tapering side walls terminating in upper and lower ends, an upper end wall extending across the upper

ends of said side walls, a lower end wall forming a surface interconnecting the lower ends of said side walls, so that said surface emerging at said bulkhead is located deeper than the level of said upper end wall, said recess being provided with an opening for the insertion of a bin, a bevelled perimetrical flange surrounding said opening and spaced from said side walls and said upper end wall, a channel formed between said perimetrical flange and said side and upper end walls, and a cover for said opening, said cover having a top wall with respective depending flange walls, the heights of said flange walls conforming to those of said tapering side walls and of said upper end wall, respectively, the front flange wall of said cover reaching said surface beyond said bevelled flange in closed condition of said cover, so that any liquid, water and the like will flow downwardly from said upper end wall in said channel and outside said perimetrical flange, while said cover flange walls clear said channel in said closed cover condition.

It is to be understood that various structural changes and modifications can be had within the scope of the attached claims without departing from the spirit and range of the invention.

What I claim as my invention and desire to secure by Letters Patent of the United States is:

1. In a bulkhead of a ship's hull; an inclined recess having opposite upwardly tapering side walls terminating in upper and lower ends, an upper end wall extending across the upper ends of said side walls, a lower end wall forming a surface interconnecting the lower ends of said side walls, so that said surface emerging at said bulkhead is located deeper than the level of said upper end wall, said recess being provided with an opening for the insertion of a bin, a bevelled perimetrical flange surrounding said opening and spaced from said side walls and said upper end wall, a channel formed between said perimetrical flange and said side and upper end walls, and a cover for said opening, said cover having a top wall with respective depending flange walls, the heights of said flange walls conforming to those of said tapering side walls and of said upper end wall of said inclined recess, said cover having further a front flange wall of a length so as to reach said surface of said lower end wall in closed condition of said cover, whereby any liquid, water and the like will flow downwardly from said upper end wall in said channel and outside said perimetrical flange while said cover flange walls clear said channel in said closed cover condition.

2. In a bulkhead according to claim 1, said perimetrical flange defining said opening, and a bin provided with an upper outwardly directed end flange spaced from said channel and resting on said perimetrical flange.

3. In a bulkhead according to claim 2, including respective block means carried by said cover therewithin and in contact with said end flange of said bin at predetermined locations of the latter in closed condition of said cover on said inclined recess.

4. In a bulkhead according to claim 1, including at least one elastic shock chord positioned to overlie said inclined walled recess and serving to retain said cover in closed condition.

5. In a bulkhead according to claim 1, including respective cover retaining members on said upper and lower end walls of said inclined recess facilitating attachment of said cover above said opening, said cover being provided with a top wall substantially level with the top end of said upper end wall of said recess.

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