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GLASS HOLDER WITH GIMBAL MOUNTING

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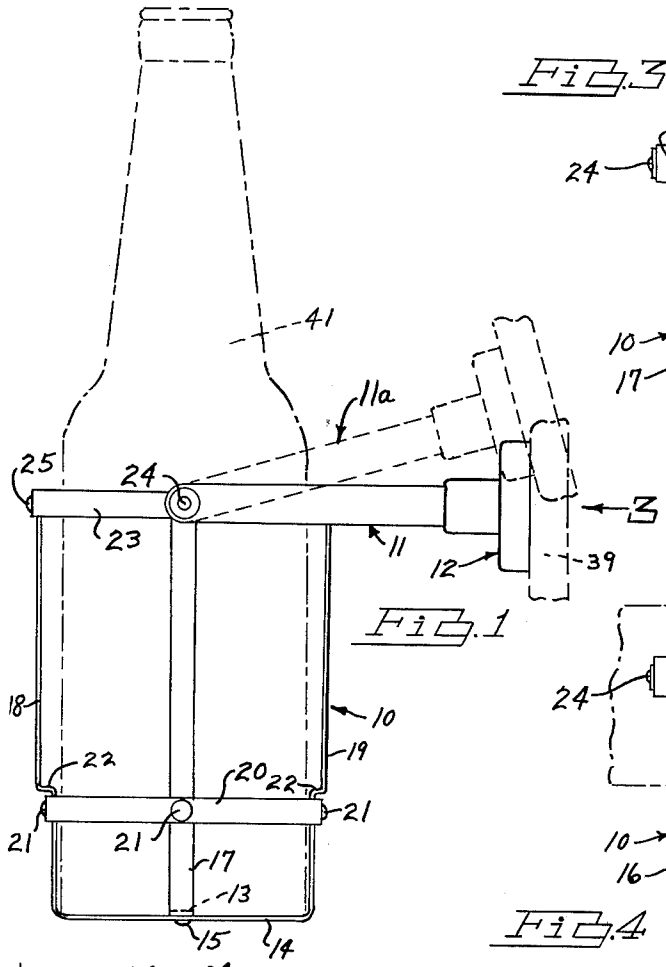


Fig. 1

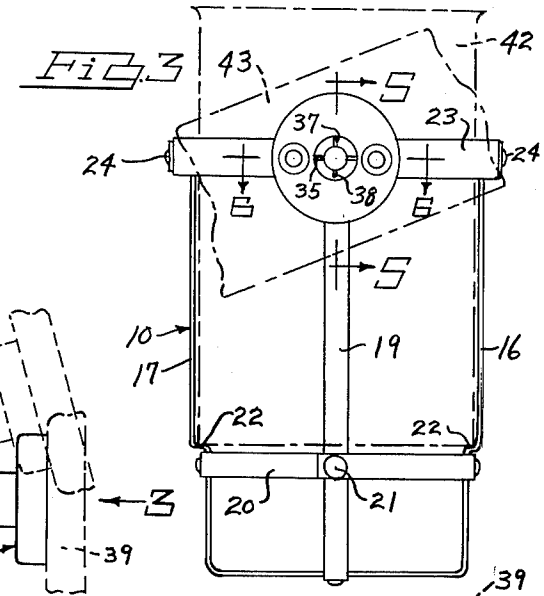


Fig. 3

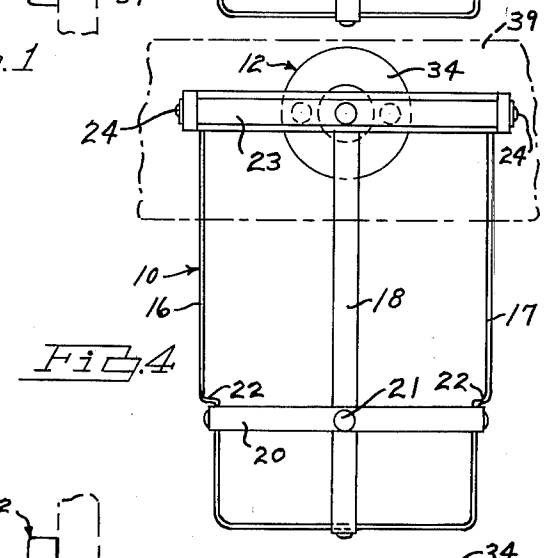


Fig. 4

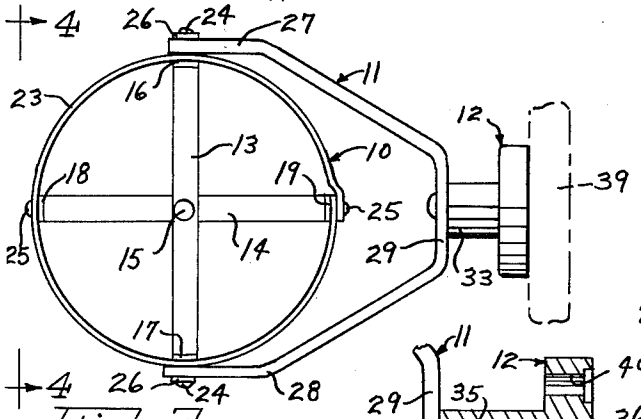


Fig. 2

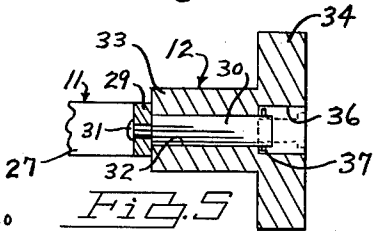


Fig. 5

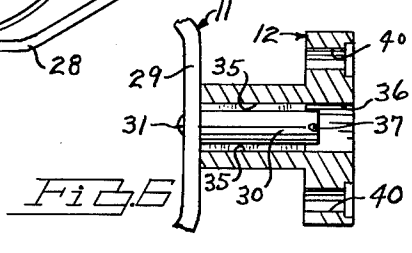


Fig. 6

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GLASS HOLDER WITH GIMBAL MOUNTING

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This invention relates to a novel and improved glass holder and in particular, to a glass holder which is provided with a gimbal mounting and adapted for use on ships, or planes or the like.

It is an important object of this invention to provide a glass holder for shipboard, or plane use and the like, which is lightweight in construction, economical of manufacture and efficient in operation.

It is another object of this invention to provide a glass holder of the class described which includes a receptacle or container for a glass, bottle or the like, which is pivotally mounted on a supporting arm for pivotal action about the first horizontal axis and wherein a supporting arm is pivotally mounted in a mounting bracket for pivotal movement about a second horizontal axis which is disposed perpendicular to the first axis whereby the supporting bracket may be fixed to a ship's bulkhead or the like and the receptacle will hold a glass in a vertical upright position regardless of the pitch or rolling movement of the ship.

Other objects, features and advantages of this invention will be apparent from the following detailed description and appended claims, reference being had to the accompanying drawing forming a part of the specification wherein like reference numerals designate corresponding parts of the several views.

In the drawings:

FIG. 1 is a right side elevational view of a preferred embodiment of the invention;

FIG. 2 is a top plan view of the structure illustrated in FIG. 1;

FIG. 3 is a rear end elevational view of the structure illustrated in FIG. 1 taken in the direction of the arrow marked 3;

FIG. 4 is a front end elevational view of the structure illustrated in FIG. 2 taken along the line 4—4 thereof and looking in the direction of the arrows;

FIG. 5 is a fragmentary elevational sectional view of the structure illustrated in FIG. 3, taken along the line 5—5 thereof and looking in the direction of the arrows; and,

FIG. 6 is a fragmentary horizontal sectional view of the structure illustrated in FIG. 3, taken along the line 6—6 thereof and looking in the direction of the arrows.

Referring now to the drawings and more particularly to the FIGS. 1, 2 and 3, the novel glass holder of the present invention is illustrated as including a holder member or receptacle generally indicated by the numeral 10 and which is pivotally carried by a U-shaped arm or yoke generally indicated by the numeral 11. The supporting arm 11 is pivotally mounted on a mounting bracket generally indicated by the numeral 12 and this bracket is adapted for mounting on a ship's bulkhead or the like. All of the aforementioned parts are preferably made from a suitable non-magnetic rust-proof and salt resistant material such as aluminum, or the like.

The holder member 10 includes a pair of U-shaped members which are provided with the horizontal bight portions 13 and 14. As best seen in FIG. 2, the bight portions 13 and 14 are disposed in over-lapping dispositions relative to each other and they are perpendicularly disposed relative to each other. The members 13 and 14 are fixedly connected together by suitable means as by the rivet 15 which has a flat inner head. Integrally connected at the ends of the receptacle member 13, are the

vertical legs 16 and 17 and the receptacle portion 14 is provided with the similar legs 18 and 19. As best seen in FIGS. 1 and 3, the receptacle legs 16, 17, 18 and 19 are inter-connected by means of the annular supporting member or ring 20 which is fixedly connected thereto by any suitable means as by the rivets 21 which are provided with a flat inner head. The supporting ring 20 may be termed the lower supporting ring and is connected to the receptacle legs at a point approximately one-third (⅓) of the distance up from the lower ends of these legs. The receptacle legs 16, 17, 18 and 19 are off-set outwardly laterally along approximately the upper two-third (⅔) portion as clearly shown in FIG. 1. The upper off-set portions are integrally connected to the lower inwardly disposed leg portions by means of the shoulders 22 formed on each of the receptacle legs. The upper ends of the receptacle legs 16, 17, 18 and 19 are fixedly connected together at the upper end by means of the annular supporting member or ring 23 which is fixedly secured thereto by any suitable means as by the rivets 24 and 25. The rivets 24 and 25 are provided with a flat head on the inner end thereof.

As best seen in FIGS. 1 and 2, the rivets 24 extend outwardly beyond the outer side of the upper ring 23 and serve as pivot pins for pivotally mounting the U-shaped supporting arm 11. A fixed bearing washer 26 is fixedly mounted on the outer end of each of the rivets 24 and bears against the outer sides of the arms 27 and 28 of the supporting arm 11. The arms 27 and 28 are pivotally mounted at the outer ends thereof on the pivot pins or rivets 24 and thus provide a pivotal mounting for the glass holder 10 for pivotal movement about the first horizontal axis. The supporting arms 27 and 28 are connected by the integral bight portion or cross member 29.

As best seen in FIGS. 5 and 6, the supporting arm bight portion 29 carries a pivot pin 30 which extends outwardly laterally from the rear face thereof and which is fixedly connected thereto by any suitable means as by the rivet 31. The pivot pin or shaft 30 is adapted to be pivotally mounted in the horizontal hole 32 formed in the boss 33 of the mounting bracket 12. The boss 33 is integrally formed and extends outwardly and laterally from the annular mounting plate 34. Formed on oppositely disposed sides of the hole 32 are the slots 35 which extend completely through the entire length of the boss or hub 33 which communicates with the enlarged hole 36 formed in the mounting plate 34. The pivot hole 32 also communicates with the hole 36. As shown in FIGS. 5 and 6, the pivot shaft 30 is provided on the rear end thereof with a pair of laterally extended oppositely disposed retainer pins 37. The pins 37 are adapted to be vertically disposed when the supporting arm 11 is in the horizontal position as shown in FIGS. 1 and 3. The mounting plate 34 is adapted to be mounted on any supporting member of a ship or an airplane, as for example, on a bulkhead shown in dotted lines in FIG. 1 and indicated by the numeral 39. The mounting plate 34 would be fixedly secured in place by any suitable means as by bolts extending through the bolt holes 40 formed from the mounting plate 34. As shown in FIG. 3, when the mounting plate 34 is properly mounted on the bulkhead 39, the slots 35 are disposed in a horizontal plane. Accordingly, in order to mount the pivot pin 30 in the pivot hole 32, the supporting arm 11 must be turned to the vertical position, or 90° from the horizontal plane to permit the retainer pins to be slid outwardly through the slots 35.

Experience has shown that the glass holder of the present invention which is provided with a gimbal mounting is efficient in operation and is capable of carrying a glass of fluid or a bottle of fluid without spilling the fluid

even in very rough weather where the boat is pitching and rolling violently. In FIG. 1, the numeral **41** indicates a bottle being held in the glass holder **10** and it will be seen that the bottle is securely held by the lower inwardly disposed leg portions of the holder. The numeral **11***a* also indicates the dotted position of the supporting arm **11** when the ship is rolled sidewise. In FIG. 3, the numeral **42** illustrates a glass being held in the upper portion of the glass holder and with the bottom edge thereof seated on the shoulders **22**. The numeral **43** indicates the ship's structure in a position other than a horizontal position when the ship is pitching. FIG. 3 illustrates how the glass is held in the vertical position even when the ship pitches and such action is due to the gimbal mounting of the instant device.

While it will be apparent that the preferred embodiment of the invention herein disclosed is well calculated to fulfill the objects above stated, it will be appreciated that the invention is susceptible to modification, variation and change without departing from the proper scope or fair meaning of the subjoined claims. As for example, the pin **30** may be made integral with the yoke portion **29** if desired.

What I claim is:

1. A device of the class described, comprising: a glass receptacle; a supporting yoke including a pair of laterally spaced apart arms which are pivotally connected to said receptacle on a first horizontal axis; a mounting bracket including a horizontally elongated boss provided with a pivot hole disposed on a second horizontal axis perpendicular to said first horizontal axis; a pivot pin on said yoke and being pivotally mounted in said pivot hole in said boss; said hole being enlarged at the rear end thereof; said pivot pin being provided with at least one laterally extended retainer pin on the rear end thereof; said retainer pin being normally disposed in a vertical position in the enlarged rear end of said hole; and, said boss being provided with at least one slot extending completely therethrough and communicating with said hole along one side thereof in a horizontal position, whereby, said pivot pin may be rotated so as to position said retainer pin in mating alignment with said slot and then said pivot pin may be removed from said hole by sliding the same away from said boss with the retainer pin sliding through said slot.

2. A device of the class described, comprising: a glass receptacle; a supporting yoke including a pair of laterally spaced apart arms which are pivotally connected to said receptacle on a first horizontal axis; a mounting bracket including a horizontally elongated boss provided with a pivot hole disposed on a second horizontal axis perpendicular to said first horizontal axis; a pivot pin on said yoke and being pivotally mounted in said pivot hole in said boss; said hole being enlarged at the rear end thereof; said pivot pin being provided with at least one laterally extended retainer pin on the rear end thereof; said retainer pin being normally disposed in a vertical position in the enlarged rear end of said hole; said boss being provided with at least one slot extending completely therethrough and communicating with said hole along one side thereof in a horizontal position, whereby, said pivot pin may be rotated so as to position said retainer pin in mating alignment with said slot and then said pivot pin may be removed from said hole by sliding the same away from said boss with the retainer pin sliding through said slot; said receptacle including a plurality of vertical legs; and, each of said legs having a horizontal shoulder adjacent the lower end thereof to form a seat for an article.

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