Nov. 2, 1965 P. C. CULVER 3,215,388

ARTICLE SUPPORT

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Fig. 1.

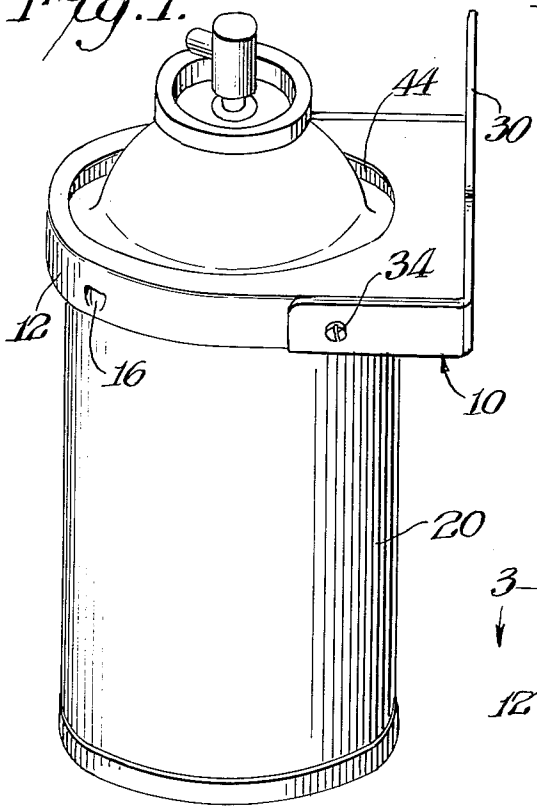


Fig. 2.

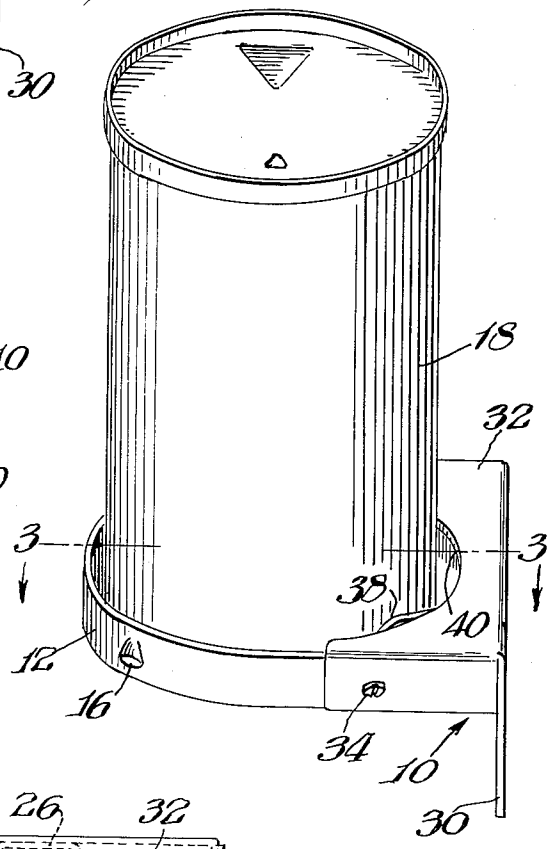
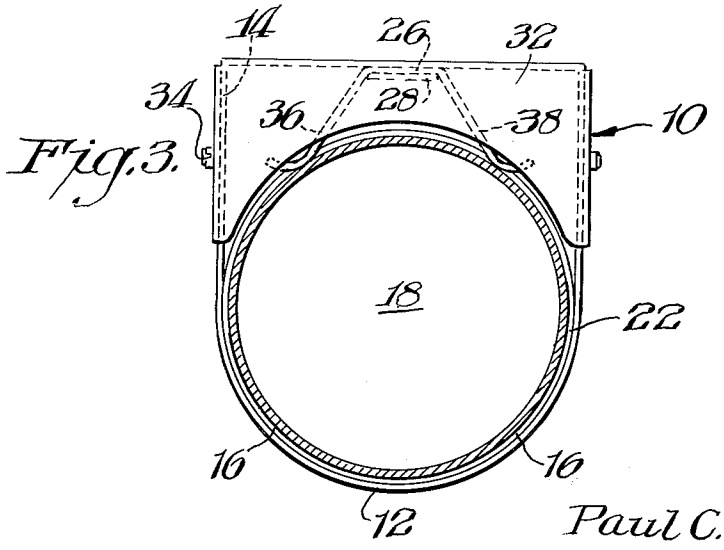


Fig. 3.



INVENTOR:
Paul C. Culver

BY Connolly and Hutz
ATTORNEYS

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Fig. 5

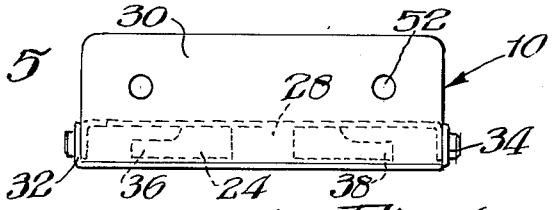


Fig. 4.

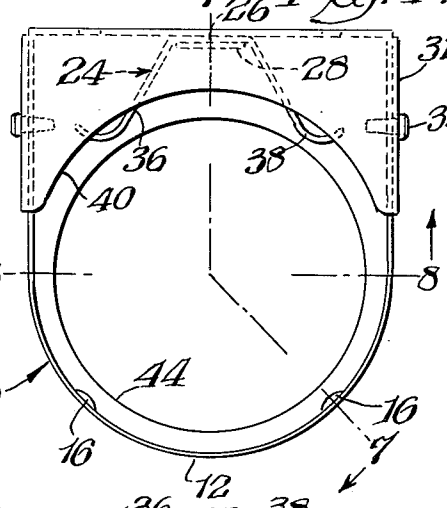


Fig. 7.

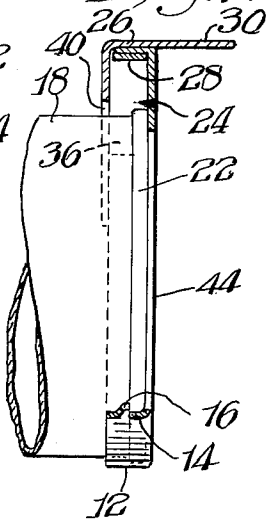


Fig. 6.

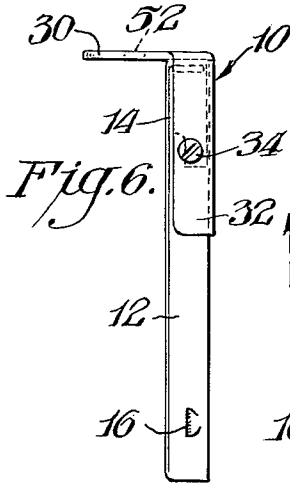


Fig. 8.

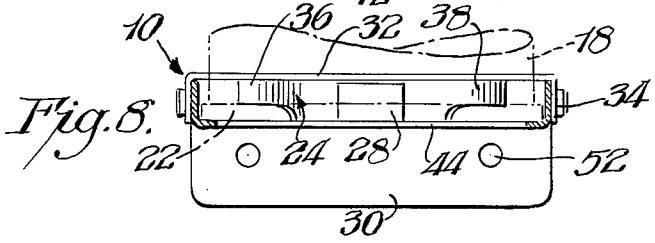


Fig. 12.

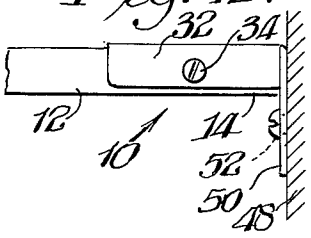


Fig. 13.

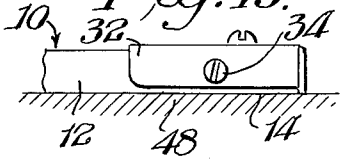


Fig. 14.

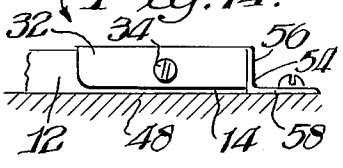
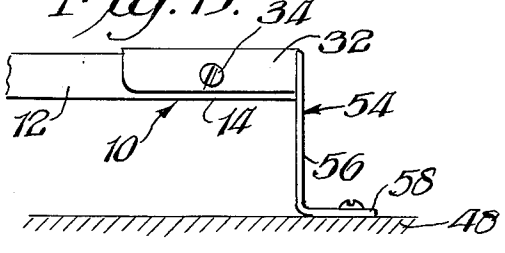


Fig. 15.



INVENTOR:
Paul C. Culver

BY Connolly and Hutz
ATTORNEYS

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Fig. 10.

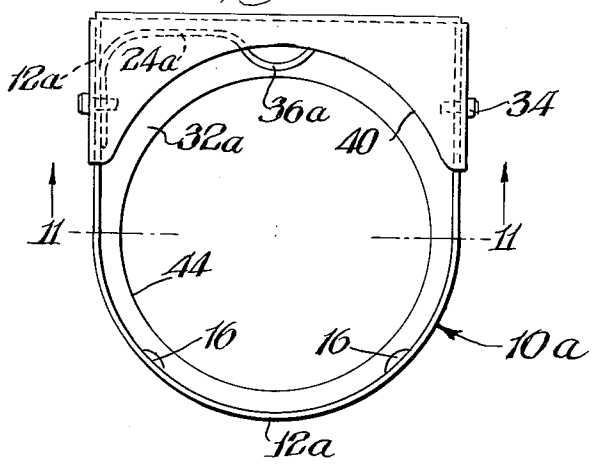


Fig. 11.

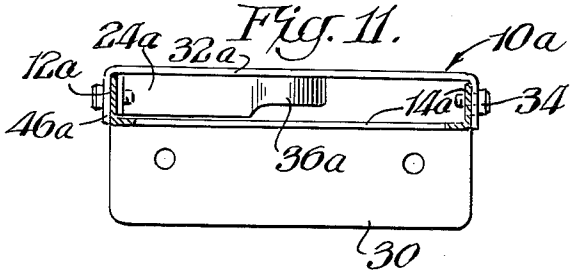
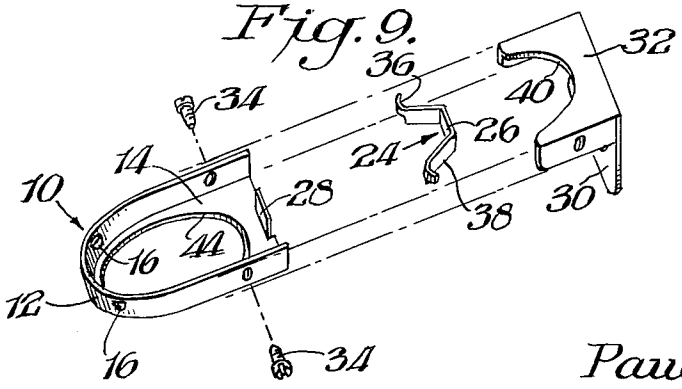


Fig. 9.



INVENTOR:
Paul C. Culver

BY Connolly and Hutz
ATTORNEYS

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ARTICLE SUPPORT

Paul C. Culver, R.F.D. 5, Quantico Road, Salisbury, Md.

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7 Claims. (Cl. 248—313)

This invention relates to supports for holding flanged or beaded articles in a fixed position, and more particularly for holding articles such as containers in positions in which they would otherwise be likely to topple over.

When articles such as flanged or beaded containers are stored or are on display, it is essential that they be held in a fixed position. This is especially important where these articles are stored on boats or other moving vehicles or are displayed in inclined positions where they are likely to topple over. There has thus been a long standing need for a device which can effectively hold such flanged articles in position and which is sufficiently low in cost to be available for wide use by the average person.

An object of this invention is to provide a simple and economical support for holding flanged or beaded articles in a fixed position to overcome their tendency to topple over.

A further object of this invention is to provide such a device in which the article can be quickly inserted and quickly released without hampering its positive holding action.

In accordance with this invention the article support includes a band of substantially closed form which fits about the article. The band has spaced projections with a resilient element secured to the band opposite a portion of the projections and coperating with them in holding the article in a fixed position. The article is easily inserted in the support by tilting the article and pressing it against the resilient element to retract it. The article is then simply snapped into place with one of the projections on one side of the flange or bead and the remainder of the projections and the resilient element on the other side. For removal the container is simply shifted sideways, pressing against the resilient element to again retract it and, in a single motion, the container is rotated until the flange or bead is free of the projections.

In an advantageous form of this invention, the resilient element comprises a leaf spring secured to the band. The leaf spring may be U-shaped with its bight held between the band and a mounting bracket. The legs of the spring may be notched to provide sufficient space for the article flange to be inserted between the spring and one of the spaced projections.

In another advantageous form of this invention, the spring may have one end anchored to both a mounting bracket and the band, with its free end reacting against the article. One of the spaced projections may be a flange having a hole with a portion of the article, such as the nozzle of an aerosol can, projecting through it.

Novel features and advantages of the present invention will become apparent to one skilled in the art from a reading of the following description in conjunction with the accompanying drawings wherein similar reference characters refer to similar parts and in which:

FIG. 1 is a perspective view of one embodiment of this invention;

FIG. 2 is a perspective view of the embodiment shown in FIG. 1 used in an alternative manner;

FIG. 3 is a cross-sectional plan view taken through FIG. 2 along the line 3—3;

FIG. 4 is a top plan view of the embodiment of the invention shown in FIG. 2;

FIGS. 5 and 6 are respectively rear and side views in elevation, of the embodiment of the invention shown in FIG. 4;

FIGS. 7 and 8 are cross-sectional views taken through FIG. 4 along the lines 7—7 and 8—8;

FIG. 9 is an exploded view of the embodiment of the invention shown in FIGS. 1–8;

FIG. 10 is a top plan view similar to FIG. 4 showing a further embodiment of this invention;

FIG. 11 is a rear view in elevation of the embodiment of the invention shown in FIG. 9; and

FIGS. 12–15 are side views in elevation of alternative mounting means for the embodiments of the invention shown in FIGS. 1–11.

As shown in FIGS. 1 and 2 bracket or support **10** is used to hold flanged or beaded articles such as containers in a fixed position on a wall, shelf, or other mounting surface in a boat, or other moving vehicle, or in an inclined position where the article would otherwise have a tendency to topple over. As most clearly shown in FIG. 9, support **10** comprises a band **12** of substantially closed form which fits around the article or container **18** and a pair of indentations or side projections **16** which abut against the flange or bead on container **18** as later described in detail. Band **12** also has a flange or projection **14** at its edge for purposes later described. As shown in FIG. 7, indentations or projections **16** are spaced from flange or lip **14** a distance at least equal to the thickness of the bead or flange **22** to permit bead **22** to be inserted between projections **16** and flange **14**. A resilient element such as U-shaped leaf spring **24** is secured to band **12** opposite and substantially in line with indentations or projections **16**. Bight **26** of spring **24** is substantially straight and secured to the band by being anchored between portion or flange **28** of band **12** and flange **30** on mounting bracket **32**. Bracket **32** is maintained parallel to flange **14** by its securement to band **12** by, for example, screws **34**. The legs **36** and **38** of spring **24** are curved at their ends and project beyond the edge **40** of bracket **32**. As shown in FIGS. 5, 6 and 8 spring **24** is substantially as wide as the distance between bracket **32** and flange **14** so that the spring is anchored snugly between flange **14** and bracket **32**. Spring **24** can thus move only substantially parallel to flange **14**. Legs **36** and **38** are notched to provide a space for the bead or flange **22** of container **18** as later described in detail.

To insert container **18** in support **10**, the container is tilted and pressed against legs **36** and **38** of spring **24** to retract the legs thereby providing sufficient clearance for the container to be conveniently snapped into place with flange or bead **22** firmly held between projections or indentions **16** and spring **24** and flange **14** as shown in FIG. 7. When container **18** is released, spring **24** returns to its original position reacting against the wall of container **18**. Any subsequent downward force, such as gravity, which might ordinarily dislodge or topple the container is resisted by indentations **16** and spring **24** reacting against flange **22**. For removal the container is simply shifted sideways, pressing against legs **36** and **38** of spring **24** to retract the legs, and then in one simple motion the container is tilted or pivoted beyond indentations **16**.

FIG. 1 shows an alternative use for support **10**. The top of aerosol can **20** is inserted through annular opening or hole **44** in flange **14** with the bead or flange (not shown) held firmly between flange **14** and the spring and projections.

FIGS. 10–11 show another support **10***a*. Support **10***a* is identical in all respects to support **10** except in the details of spring **24***a*. Spring **24***a* is anchored at one end to band **12***a*, while free end **36***a* projects beyond the edge of bracket **32***a*. Curved free end **36***a* is notched as shown in FIG. 11 to provide sufficient clearance for the bead of the container (not shown). Conveniently spring **24***a* and bracket **32***a* are both attached to band **12***a* by, for

example, a screw through aligned holes in the band, the spring, and flange **46***a* of bracket **32***a*.

FIGS. 12–15 show various ways of mounting bracket or support **10** on wall **48** or the like. In FIG. 12 base **50** on bracket **32** extends beyond flange **14**. Support **10** is conveniently attached to wall **48**, by for example, screws through hole **52** in base **50**.

As shown in FIG. 13 support **10** is secured to wall **48** by for example a screw extending through aligned holes in flange **14** and bracket **32**.

FIGS. 14 and 15 show still further ways of attaching support **10** to wall **48**. As shown in FIGS. 14 and 15 bracket **32** has an L-shaped clip **54**. One leg **56** abuts against flange **14** and the other leg **58** is secured against wall **48**. As shown in FIG. 15, leg **56** extends beyond flange **14** when it is desired to space the container from wall **48**, while in FIG. 14 leg **56** terminates at plate **12**.

As is readily apparent supports **10** and **10**a provide a simple holding device which is readily adaptable for holding a wide variety of different type articles effectively in place without the necessity of complicated manipulations for inserting or removing the article.

What is claimed is:

1. A support for holding a flanged article in a fixed position comprising a band of substantially closed form to fit around said article, said band having an interior wall, an inwardly directed lip at the bottom of said interior wall, projecting means on said interior wall spaced above said lip, resilient means on said interior wall opposite said projecting means, said resilient means comprising a U-shaped leaf spring, an upstanding flange being on said lip, a bracket connected to the top of said band, a downwardly disposed plate on said bracket adjacent said flange, and the bight of said spring being between said flange and said plate.

2. A support as set forth in claim **1** wherein fastening means secures said bracket to the sides of said band, and said bight of said spring is clamped between said flange and said plate.

3. A support as set forth in claim **1** wherein said spring is substantially as wide as said interior wall and the free ends of the legs of said spring being notched.

4. A support as set forth in claim **1** wherein said band includes a plurality of indentations on its side wall, and said indentations comprising said projecting means.

5. A support for holding a flanged article in a fixed position comprising a band of substantially closed form to fit around said article, said band having an interior wall, an inwardly directed lip at the bottom of said interior wall, projecting means on said interior wall spaced above said lip, resilient means on said interior wall opposite said projecting means, a bracket being connected to the top of said band and extending along the side thereof, said resilient means comprising a leaf spring with a free end and an anchored end, said anchored end being secured to said bracket and said band, aligned apertures being in said anchored end of said spring and said bracket and said band, and fastening means securing said spring to said bracket and band through said aligned apertures.

6. A support as set forth in claim **5** wherein said spring is substantially as wide as said interior wall, and said free end of said spring being notched.

7. A support as set forth in claim **5** wherein said band includes a plurality of indentations on its side wall, and said indentations comprising said projecting means.

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FRANK L. ABBOTT, *Primary Examiner.*