

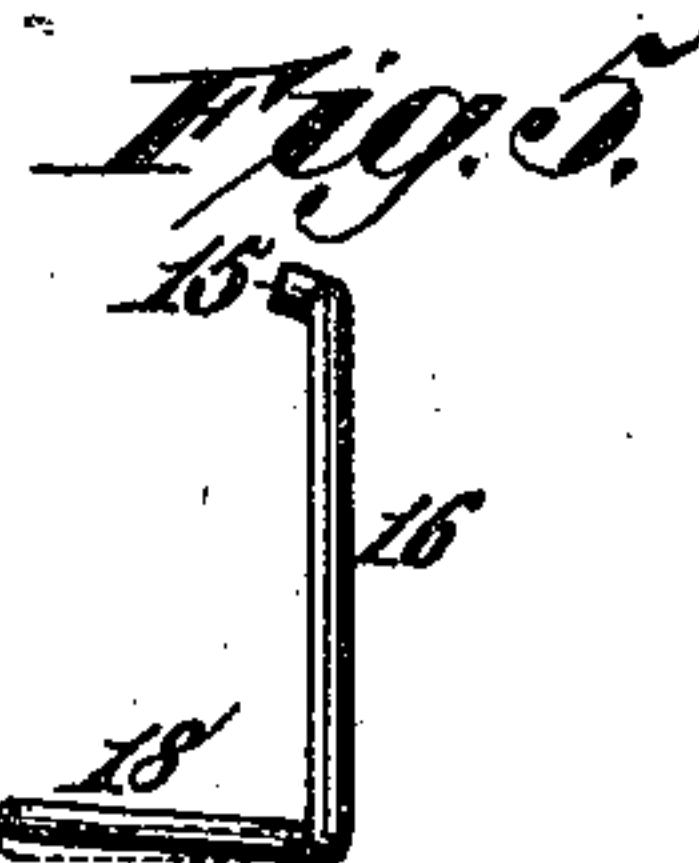
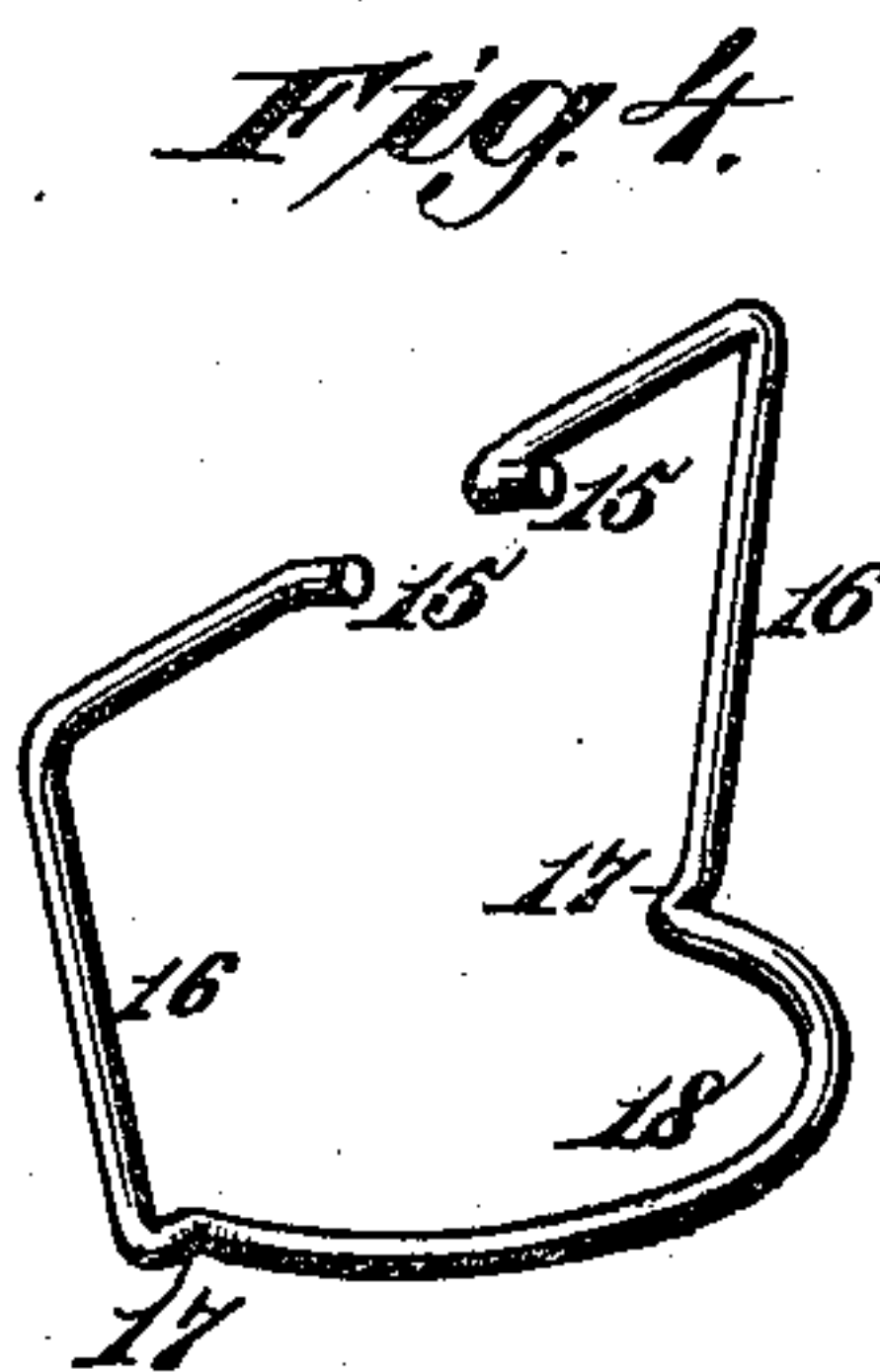
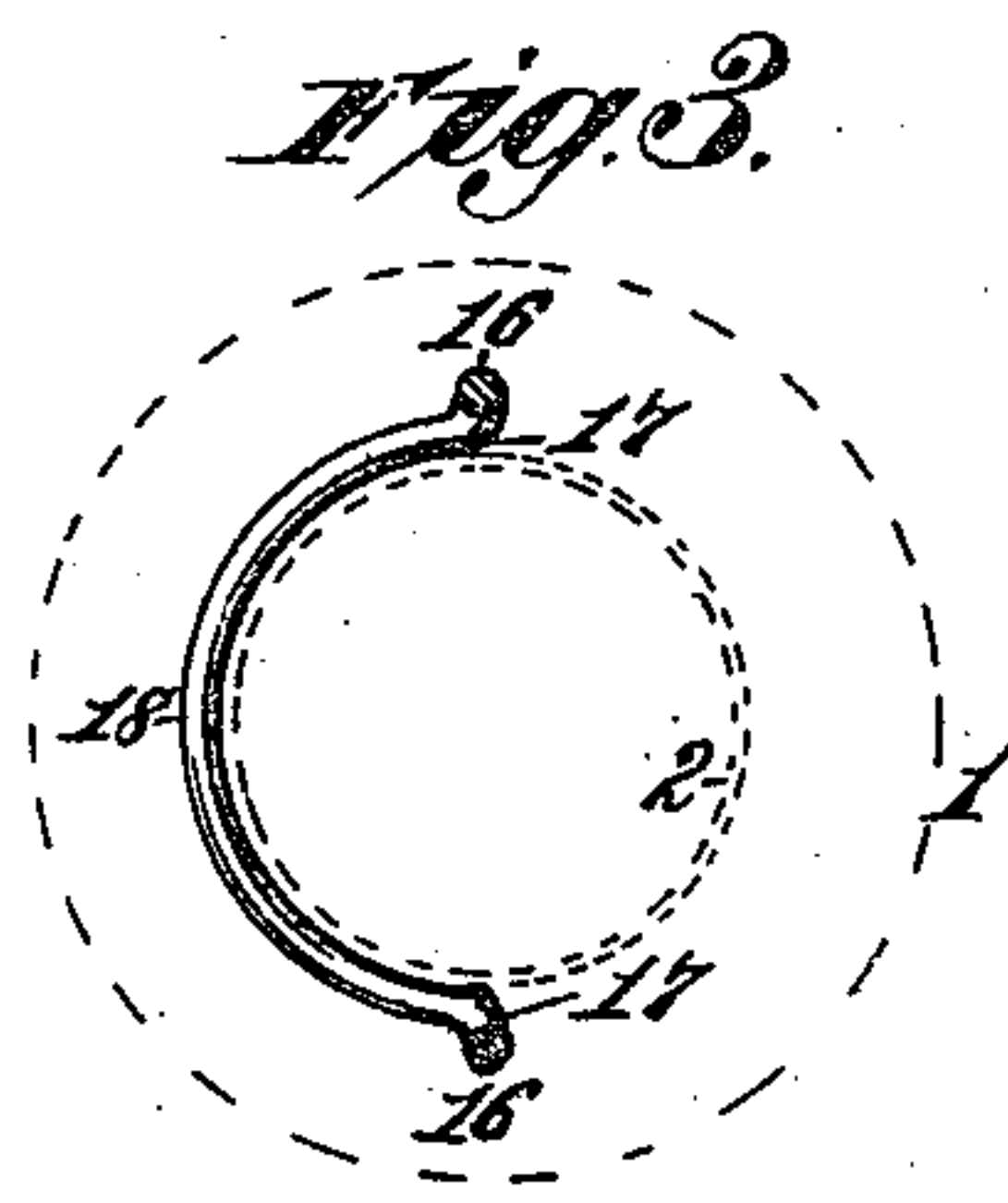
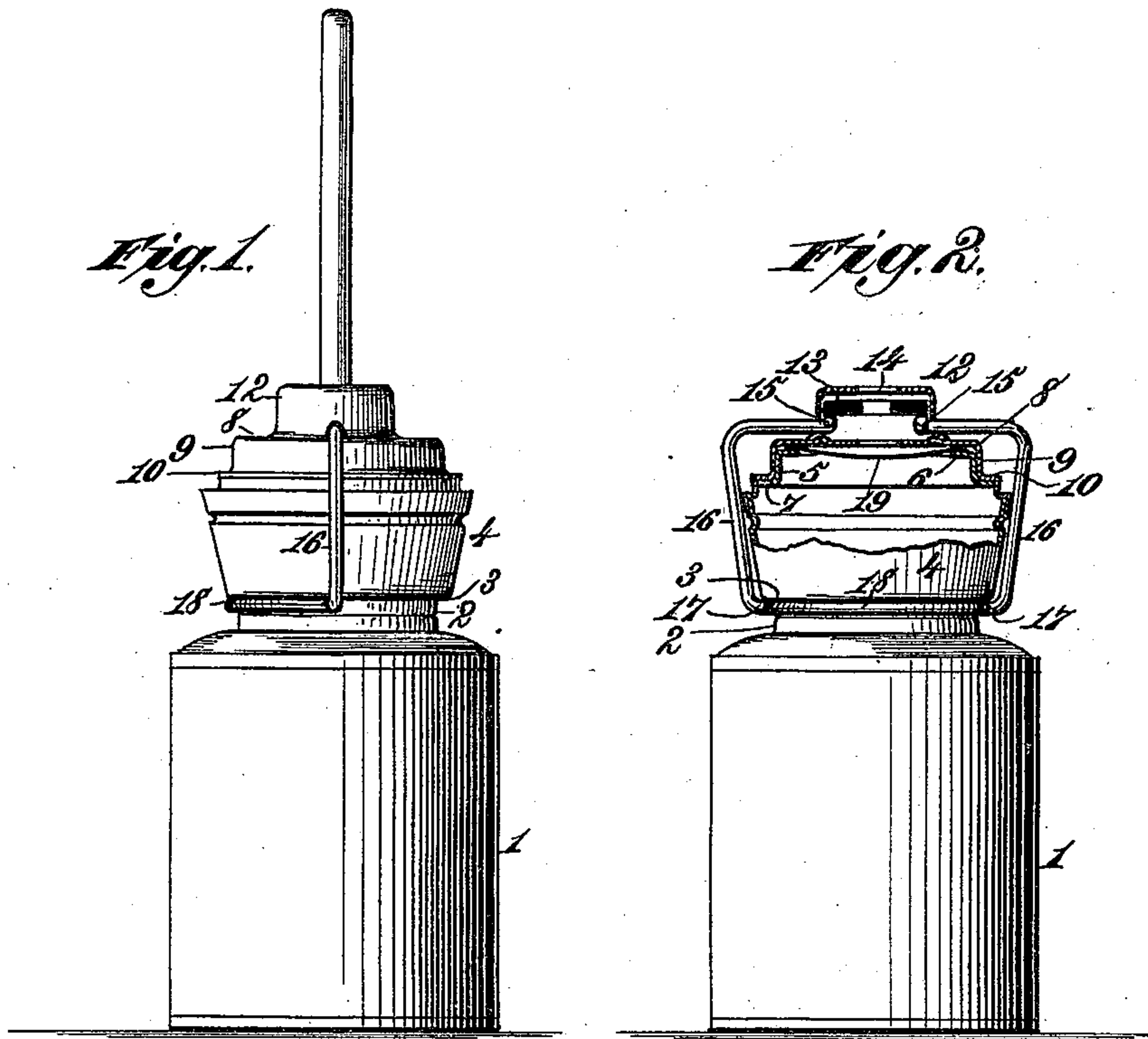
(No Model.)

D. N. MARTIN.

VESSEL FOR HOLDING LIQUID GLUE.

No. 396,586.

Patented Jan. 22, 1889.



Witnesses:  
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Atty.



# UNITED STATES PATENT OFFICE.

DAVID N. MARTIN, OF GLOUCESTER, MASSACHUSETTS, ASSIGNOR TO THE  
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## VESSEL FOR HOLDING LIQUID GLUE.

SPECIFICATION forming part of Letters Patent No. 396,586, dated January 22, 1889.

Application filed August 30, 1888. Serial No. 284,141. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID N. MARTIN, a citizen of the United States, residing at Gloucester, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Vessels for Holding Liquid Glue and other Substances, of which the following is a specification.

My invention relates to that class of bottles or vessels used for holding liquid glue and other similar preparations, wherein ready access to the interior, the prevention of rapid evaporation, and a secure sealing of the mouth of the vessel for purposes of transportation are essential requisites.

It is the purpose of my invention to provide a simple, novel, and comparatively inexpensive construction and combination of parts, whereby the cover, cap, or stopper of the bottle or vessel shall be hermetically and securely retained in such position for any period, while at the same time the cover shall be readily and instantaneously removable to permit the introduction of the brush or the removal of the contents.

It is my purpose also to so construct the cover, top, or stopper that it may be permanently connected to or mounted upon a brush or brush-shank, and it may be made adjustable thereon, the joint between the two parts being rendered substantially impermeable to air, and to combine with said cover, top, or stopper simple means whereby the latter may be fastened in place and so closely drawn down upon the mouth of the vessel as to practically exclude the air, sealing the vessel when not in use, and preserving its contents against loss or deterioration by evaporation, and affording ready and instantaneous access thereto at any moment.

The invention consists in the several novel features of construction and new combinations of parts, hereinafter fully set forth, and then specifically pointed out and defined in the claims.

In the accompanying drawings, Figure 1 is a side elevation illustrating my invention. Fig. 2 is a front elevation, partly in section. Fig. 3 is a horizontal section of Fig. 2, the neck of the vessel being shown in dotted lines. Fig. 4 is a detail perspective view of the elastic

fastening-yoke. Fig. 5 is a detail side elevation of the elastic fastening-yoke.

In the said drawings, the reference-numeral 1 designates the body of the bottle or vessel, which may be made of sheet metal, glass, or other suitable material. For cheapness, strength, and lightness, tin or similar sheet metal is well adapted to the purpose in view, and is in some respects preferable, for reasons that will be stated hereinafter.

The upper portion of the vessel 1 may be provided with a neck, 2, which is provided with an annular shoulder, 3, above which the neck is provided with an upwardly expanding or flared frustum-shaped portion, 4, surmounted by a circular flange, 5, having an inwardly-turned edge, 6. A lip or bead, 7, may be formed at the base of the flange 5 to serve as a seat for the cover or cap. When the vessel is formed of tin, the frustum-shaped portion 4 is struck in a die of the required dimensions, and the other parts are formed in a similar manner, thereby securing great accuracy in the construction and dimensions of said parts, whereby a perfect fit and hermetical seal are secured without the use of gaskets or packing.

The reference-numeral 8 denotes the cover, cap, or stopper, which is preferably formed of metal struck in a die. This cover is provided with a flange, 9, having an outwardly-turned lip, 10, which rests upon the seat or bead 7, while the flange 9 surrounds the circular flange 5. Upon the cover 8 is mounted the circular box 12, which serves a twofold purpose. Within said box is contained the rubber washer 13, which surrounds the shank or handle of the brush, the latter being introduced through openings 14, formed in the cover and in the top of the box.

Upon opposite sides of the vertical wall of the box 12 openings are formed, which receive the extremities of wire arms 15, positively retained in engagement with said box by bending the inserted ends or by forming thereon heads which are larger than the openings in the box. From these openings the arms 15 extend laterally far enough to clear the top of the frustum 5, and are then bent downward and slightly inward or toward the axis of the bottle or vessel. The downwardly-bent portions 16 thus converge slightly, following, or



substantially so, the angularity of the frustum 5. At their lower ends the arms 16 are bent sharply inward or toward each other, forming shoulders 17, which are connected by a semicircular collar or spring-yoke, 18. This collar or brace has a diameter equal to the exterior diameter of the neck 2 beneath the annular shoulder 3, and it normally lies in a plane forming an angle with the arms 16 of a little less than ninety degrees. The length and convergence of these arms 16 are such that the shoulders 17 will, when the cover is in place and the fastening-yoke is swung upon its bearings, begin to engage the annular shoulder 3 before said arms reach a vertical position.

Such being the construction of the parts, the operation is as follows: The vessel being filled with glue or similar material, the cap or cover 8 is placed upon the flange 5, its outwardly-turned edge or lip 10 resting upon the seat or bead 7 at the base of said flange. The yoke is then swung downward, turning upon its pivotal bearings within the box 12. As the arms 16 approximate a vertical position, the shoulders 17 on said yoke engage the shoulders 3, and as they swing under the same they draw or strain downward upon the cover or cap, the lateral arms 15 springing downward or having an elastic yield, which permits the shoulders 17 to pass under the shoulder 3 until the arms 16 are brought into or nearly into vertical position.

The semi-annular collar or spring yoke 18 being so formed, as already explained, as to lie in a plane which forms less than ninety degrees with the plane of the arms 16, it will, as said arms nearly approach the vertical, begin to pass under the annular shoulder 3, having two points of contact with the outer edge or angle thereof, said contact-points moving from the ends of said yoke toward its center until at the moment when the entire yoke passes beneath said shoulder it touches the latter by its central portion only. In other words, the yoke yields by its own elasticity as it passes beneath the shoulder, giving an additional downward strain upon the arms 16, and as it passes completely under the shoulder 3 it makes engagement therewith by its upward tension and holds the fastening in place. Moreover, the yoke being of a diameter somewhat less than the exterior diameter of the neck 2, its ends are spread as the cover is locked, thereby drawing the shoulders 17 inward or beneath the shoulders 3 and imparting a further downward strain upon the arms 16. It should also be noted that I propose to so construct the fastening that as the yoke swings under the shoulder 3 and the arms 16 approach the vertical they shall engage the expanding wall of the frustum 7, binding thereon by frictional contact, and thereby assisting to retain the fastening in place, while at the same time, by moving upon the opposite downwardly-converging faces of the frustum, an additional downward strain is

imparted to the laterally-extending arms 15. The arms 15 being positively secured to and within the box 12, the action of the yoke and of the arms 16 in their engagement with the shoulder 3 and frustum 4, respectively, only tends to close the cover down more powerfully, instead of merely spreading the pivotal extremities or withdrawing them from the box 12, as would be the case were the pivotal bearings not positively secured within the box, as described. It is not essential to my invention, however, that there should be contact between the depending arms 16 and the sides of the frustum.

By this invention I provide an exceedingly cheap, convenient, and effective seal for vessels of the type described. So perfectly is the bottle closed that no packing of any sort is required, though for purposes of transportation, when the brush is not placed in the bottle, a disk of paper, 19, may be laid upon the inwardly-turned edge 6 of the flange 5. The cover 8 seats upon the edge of this paper disk, and is so closely drawn down thereon that the penetration of the glue within the joint is practically impossible. The annular shoulder 3 being flat, or, in other words, presenting a surface to the yoke 18, which forms a right angle with the vertical line of strain of said yoke, the latter does not tend to release itself by its own spring tension, and there is no loss of downward strain upon the arms 16 as the yoke springs beneath the shoulder.

What I claim is—

1. As a new article of manufacture, a vessel for holding liquid glue and similar substances, consisting of a receptacle having a contracted neck surmounted by an annular shoulder, a top rising above said shoulder and having an opening, a cap or cover having a substantially central box provided with a central opening to receive the shank of the brush, and a wire fastener having arms 15, the ends of which are pivotally and positively fastened in opposite sides of said box, said arms extending laterally or in opposite directions from said box, and being bent downward beside the sides of the top, and provided with shoulders 17, lying beneath and in engagement with the shoulder above the neck, and connected by a yoke, 18, partly surrounding said neck, substantially as described.

2. In a bottle for holding liquid glue or other similar substance, said bottle having a neck surmounted by an annular shoulder, a cover seating upon the top of said neck and provided with a box, and a fastening having its ends pivotally mounted and positively fastened within said box, and extending laterally therefrom, thence bent downward, the lower ends of the converging arms being bent inwardly under the annular shoulder, and connected by a spring-yoke having a diameter slightly less than that of the neck beneath the shoulder, and lying in a plane which forms an angle of less than ninety degrees with the



plane of the depending arms, the parts being combined to operate substantially as described.

3. The combination, with a bottle or other  
5 vessel for holding liquid glue, said bottle having a neck surmounted by an annular shoulder formed upon a portion having the shape of an inverted frustum of a cone, of a cover seating upon the top of said frustum and provided with a circular box, and a fastening having two laterally-extending arms pivotally mounted in and positively engaged with said box, the said arms being bent into approximate parallelism with the opposite sides of  
10 the inverted frustum, their lower ends curved under the annular shoulder, and connected by a spring-yoke in a plane forming an angle of less than ninety degrees with the depending converging arms which engage the upper part  
15 of the frustum, substantially as described.

4. The combination, with a bottle, 1, having

a neck, 2, surmounted by a flat shoulder, 3, formed on a portion, 4, having the shape of an inverted frustum, of a cover, 8, seating upon a circular flange, 9, on the top of the portion  
25 4, said cover having a box, 12, and a fastening having laterally-extending arms 15, pivotally mounted in and positively engaged with said box, said arms having depending arms 16, bent to converge downwardly, and having elbows 17, curving under the shoulder 3, and connected by a spring-yoke, 18, of slightly less diameter than the neck 2, and bent to lie in a plane forming an angle of less than ninety  
30 degrees with the plane of the converging arms 16, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

DAVID N. MARTIN.

Witnesses:

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VINTON COOMBS.