UNITED STATES PATENT OFFICE.

CHARLES WILLIAM THOMPSON, OF QUINCY, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO EDWIN J. TUCKER, OF MALDEN, MASSACHUSETTS.

FRUIT JAR AND LIKE RECEPTACLE.

1,140,143.


To all whom it may concern:

Be it known that I, CHARLES WILLIAM THOMPSON, a citizen of the United States, residing at Quincy, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Fruit Jars and like Receptacles, of which the following is a specification.

This invention relates to a receptacle, such as a fruit jar, having an upwardly facing packing-ring seat and a cap having a marginal portion formed to clamp a packing-ring against the seat, clamping pressure being exerted on the cap by toggles, which include inner members hinged to anchoring means on the receptacle, and outer hooked members bearing on the cap, and adapted to exert downward pressure thereon when the toggles are rendered active.

One object of the invention is to render the toggles conformable to different receptacles and caps, and to prevent the slight shortening of the toggles and the slight relaxation of pressure caused thereby on the cap, which usually occur when the toggles reach their final holding-down position.

Another object is to provide for a separable connection between the toggles and the receptacle, so that the toggles may be removed from the receptacle whenever this is desirable.

Other objects will more fully appear hereinafter.

The invention is embodied in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification,—

Figure 1 is a side elevation of a fruit jar embodying the invention.

Figure 2 is a section on line 2—2 of Figure 1, and a plan view of parts below said line.

Figure 3 is a fragmentary section on line 3—3 of Figure 2.

Figure 4 is a fragmentary side elevation, showing a portion of the receptacle and one of the stud elements hereinafter described.

Figure 5 is a fragmentary side elevation, showing portions of the receptacle and closure, and one of the toggles.

Figure 6 is a section on line 6—6 of Figure 5.

Figure 7 is a perspective view of one of the toggles, and the accompanying anchoring means element.

Figures 8 and 9 are fragmentary elevations showing modifications.

Figure 10 is a section on line 10—10 of Figure 8.

The same reference characters indicate the same parts in all of the figures.

In the drawings, 12 represents the neck of a receptacle, having an annular upwardly facing seat 13, surrounding the receptacle mouth. The neck is provided with anchoring means for the toggles hereinafter described. Figures 1 to 6 show anchoring means embodied in fixed elements 16, which are preferably studs integral with the neck 12, and Figures 1, 3, 6 and 7 show movable elements which are preferably resilient sockets 17, separably connected with the studs.

Figures 8, 9 and 10 show anchoring means embodied in a wire band 18, encircling the neck. The toggles are composed of inner members 20, hinged at 21 to the anchoring means, and outer members 22 hinged at 25 to the inner members, and having hooks 24 at their swinging ends, adapted to bear on the cap 25. The toggles are adapted to exert downward pressure on the cap 25, causing the latter to compress a rubber packing-ring 27 closely against the seat 13.

The relative arrangement of the hinge 21, the hinge 23, and the hook 24 in each toggle is such that when the toggle is rendered active, the hinge 21 is outside a straight line extending from the hook to the hinge 23, as shown by Figure 6.

Toggles operated as described are not new with me, but in toggles heretofore used the inner members have been rigid, or non-resilient. According to my invention the inner members 20 are resilient and preferably U-shaped, the body of the member being bowed outwardly between the hinges 21 and 23. When the toggles are rendered active, the resilient members 20 are put under tension, and thereby caused to prevent the slight decrease in the distance between the hinge 23 and hook 24, which would take place if the member 20 were stiff, or non-resilient, when the hinge 23 passes inward beyond a point where it is in alinement with the hinge 21 and hook 24. The resilience of the members 20, therefore, pre
vents any relaxation of the downward pressure of the toggle on the cap when the toggle becomes active. The resilience of the members 20 also renders the toggles conformable to different receptacles and caps. I mean by this that the same toggles may be used with either of a number of receptacles, in some of which the toggle seat on the cap may be higher or lower, relatively to the point at which the toggles are anchored, than in others. The resilient members render the toggles automatically adjustable, and compensate for variations in the heights of the toggle seats of different caps.

The separability of the movable elements 17 of the anchoring means from the fixed elements 16, enables the toggles to be removed from the receptacle, as indicated by Figure 7, whenever this is desirable.

The hooks 24 are preferably V-shaped, and the cap is provided with a V-shaped annular seat 30 for the hooks. This form of the hooks and seat reduces the liability of the cap to be thrown forcibly off from the neck when one toggle is released, or rendered inactive before the other, the outer arm or portion of the V-shaped hook constituting a stop which bears on the corresponding portion of the seat 30, and opposes a swinging movement of the cap in the direction indicated by the arrow in Figure 6.

The outwardly bowed U-shaped members 20 are adapted to serve as handles to be grasped by a thumb and finger, so that the toggle may be conveniently manipulated.

I claim:

1. A receptacle having an annular upwardly facing seat surrounding the mouth, and toggle-anchoring means below said seat, a cap having a downwardly facing marginal portion, adapted to press a packing-ring against said seat, and toggles composed of inner members hinged to said anchoring means, and hooked outer members hinged to the inner members, said toggles, when active, exerting downward pressure on the cap, and their inner members being U-shaped and resilient, and adapted to be compressed and put under tension by the operation of rendering the toggles active, and thereby caused to render the toggles conformable to different receptacles and caps, and to prevent relaxation of pressure on the cap when the toggles reach their active positions.

2. A receptacle substantially as specified by claim 1, said anchoring means being embodied in fixed stud elements on the receptacle, and resilient socket elements separably engaged with the stud elements, and hinged to the said inner toggle members, said socket elements and toggles being separable from the receptacle by the separation of the socket elements from the stud elements.

3. A receptacle substantially as specified by claim 1, the hooks of the said outer members being V-shaped, and the said closure being provided with a V-shaped seat for said hooks, substantially as and for the purpose specified.

4. A receptacle substantially as specified by claim 1, the said inner member being U-shaped and bowed outwardly from the receptacle, so that it may serve as a handle portion.

In testimony whereof I have affixed my signature.

CHARLES WILLIAM THOMPSON.