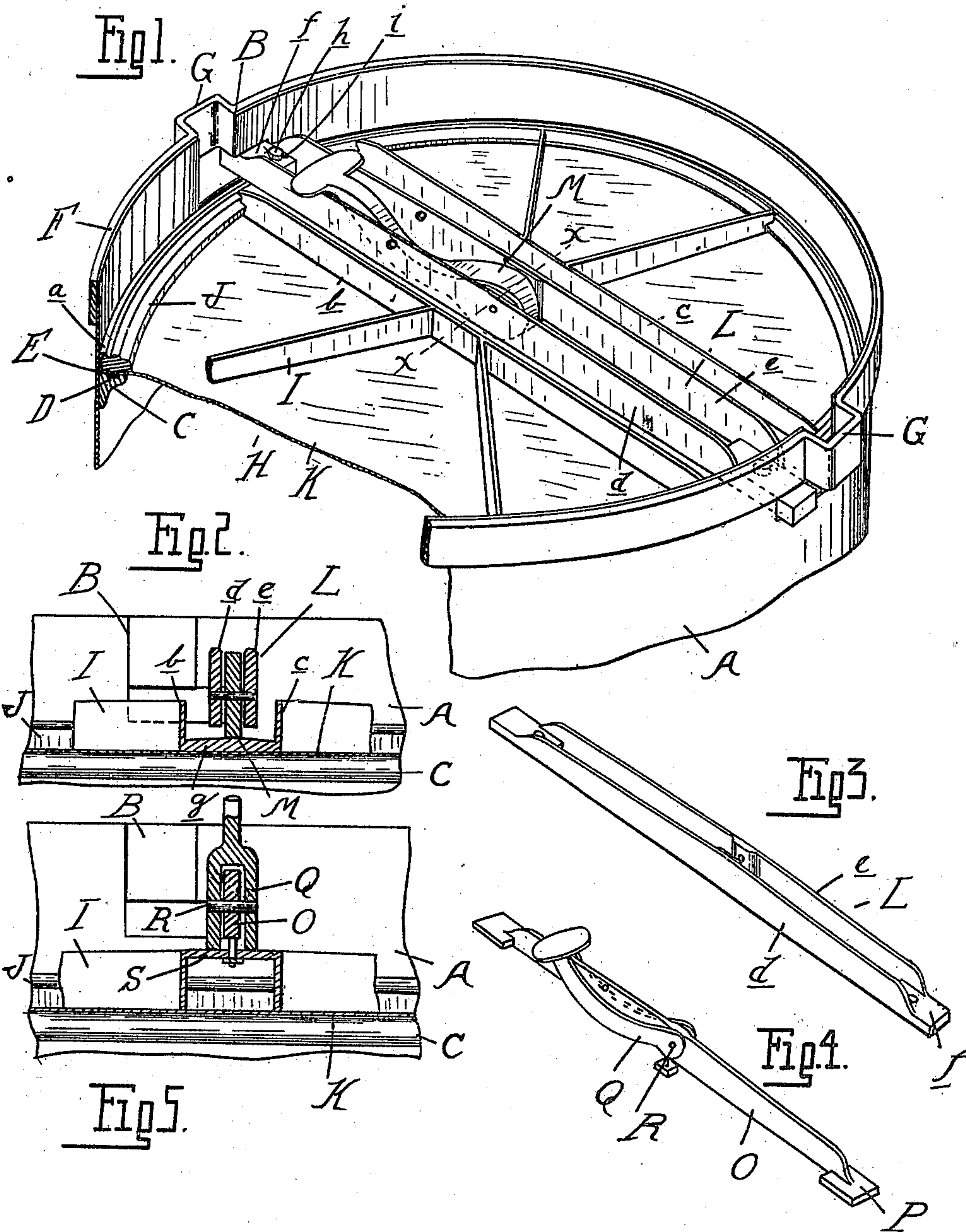


F. B. JOY.  
BARREL COVER FASTENER.  
APPLICATION FILED OCT. 21, 1909.

984,005.

Patented Feb. 14, 1911.



Witnesses  
W. E. Ford.  
W. B. Knapp

Inventor  
Francis B. Joy  
By *Whitman, Baker & Whitman*  
Attorneys



# UNITED STATES PATENT OFFICE.

FRANCIS B. JOY, OF DETROIT, MICHIGAN.

BARREL-COVER FASTENER.

984,005.

Specification of Letters Patent. Patented Feb. 14, 1911.

Application filed October 21, 1909. Serial No. 523,866.

To all whom it may concern:

Be it known that I, FRANCIS B. JOY, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Barrel-Cover Fasteners, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates generally to kegs or barrels having detachable heads, and consists primarily in the novel construction of the barrel or keg closure, in the peculiar means employed for retaining the same in place; and, further, in various details of construction, as will be more fully hereinafter set forth.

In the drawings,—Figure 1 is a sectional perspective view illustrating an embodiment of my invention; Fig. 2 is a section taken on line  $x-x$  Fig. 1; Fig. 3 is a detached sectional perspective view of the locking bar; Fig. 4 is a perspective view of a modified form of bar; and Fig. 5 is a sectional view showing the application of the modified construction of locking bar to the barrel head.

In the drawings thus briefly described, A designates the barrel body, preferably of metal, having formed in its upper or top edge at diametrically opposite points bayonet slots B, these slots being oppositely disposed. Within the open end of the barrel and secured to the inner face or wall at a distance below the top is a support C, in this instance in the form of a ring preferably riveted to the barrel body. An annular groove D is formed in the upper face of the ring which receives a continuous packing E, forming the means of sealing the cover or closure.

F is a reinforcing band or chime ring extending about the open end of the barrel, preferably flush with the upper edge. This band or hoop is flared or bulged outwardly at diametrically opposite points, as at G, and immediately opposite the entrance openings of the bayonet slots, as plainly shown in Fig. 1.

H represents the cover or closure, which I have shown as consisting primarily of a framework composed of a spider I and an annulus J, and a sheet of material K extending over the framework and having its marginal portions  $a$  turned up over the ring J, as shown, the covering described being preferably of metal. The framework in-

cludes in its construction two spaced diametrically extending bars  $b\ c$ , and between these bars is located the locking member or bar L which serves to hold and clamp the cover in place. In Fig. 1 the locking bar is shown as composed of two spaced members  $d\ e$ , united at their ends by plates or blocks  $f$  which are of a length to extend outwardly through the barrel and to slightly beyond the outer edge of the reinforcing ring. At its center the locking bar carries an eccentric lever M pivoted between the members  $d\ e$ , which is adapted to bear against a plate  $g$  formed for that purpose centrally between the frame members  $b\ c$ . In Figs. 1 to 3 inclusive I have shown the locking bar as connected to the head by means of studs  $h$  upon the annulus J, which project through apertures in the block  $f$ , and cotter pins  $i$  engaging the studs.

The closure above described is applied to the barrel by registering the projecting ends of the locking bar with the bulging portions G of the retaining ring, and then dropping the head upon its support. As soon as this latter engagement is effected the locking bar is rotated to bring its projections within the lateral portions of the bayonet slot and beneath the retaining ring, and subsequently the clamping and sealing of the closure upon its seat is effected through the agency of the eccentric lever.

With a construction of locking bar as described it is necessary to rotate the head or cover on its seat both in closing or opening the vessel. In cases where the contents of the barrel is such as to cause the cover to stick after being sealed,—as where, for instance, paint is the material in the vessel,—it is difficult to rotate the cover when opening the package. To obviate this I have provided a modified form of locking bar that may be shifted into its locking or unlocked position independently of the cover, so that its rotation is not required. This form of bar is shown in Figs. 4 and 5, comprising a single bar O having the usual extension plates P. The eccentric lever is forked, as at Q, to engage upon opposite sides of the bar, and is pivoted thereto by a pintle or stud R. The bearing plate S with this form of bar is arranged flush with the tops of the members  $b\ c$  of the spider, so that the bar and its operating lever are free to swing upon the barrel head independently thereof.



What I claim as my invention is,—

1. The combination with a container body open at one end, of an annular flange secured upon the inner wall of the body below said end forming a seat, a closure resting upon the seat, a bar extending across the closure rotatable about its center as an axis in a plane substantially parallel with the closure and engageable upon rotation with the container body at substantially diametrically opposite points, and an eccentric between the cross bar and closure for clamping the latter in place.
2. The combination with a cylindrical shell having formed in the margin of its open end oppositely disposed slots, of a hoop encircling the shell end formed with outwardly projecting flutes opposite the entrance openings of the slots, an annular seat within the shell, a bar extending across the

closure of a length to project within the slots and to engage beneath the ring, an eccentric lever between the cross bar and closure for clamping the latter to its seat.

3. The combination with a container open at one end, of a closure therefor, a seat for the closure on the container, a member extending across the container rotatable in a plane substantially parallel with the closure and engageable on rotation with the container at oppositely disposed points, and means positioned intermediate the closure and said member cooperating with the latter for clamping the closure to its seat.

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

FRANCIS B. JOY.

Witnesses:

W. J. BELKNAP,  
JAMES P. BARRY.