

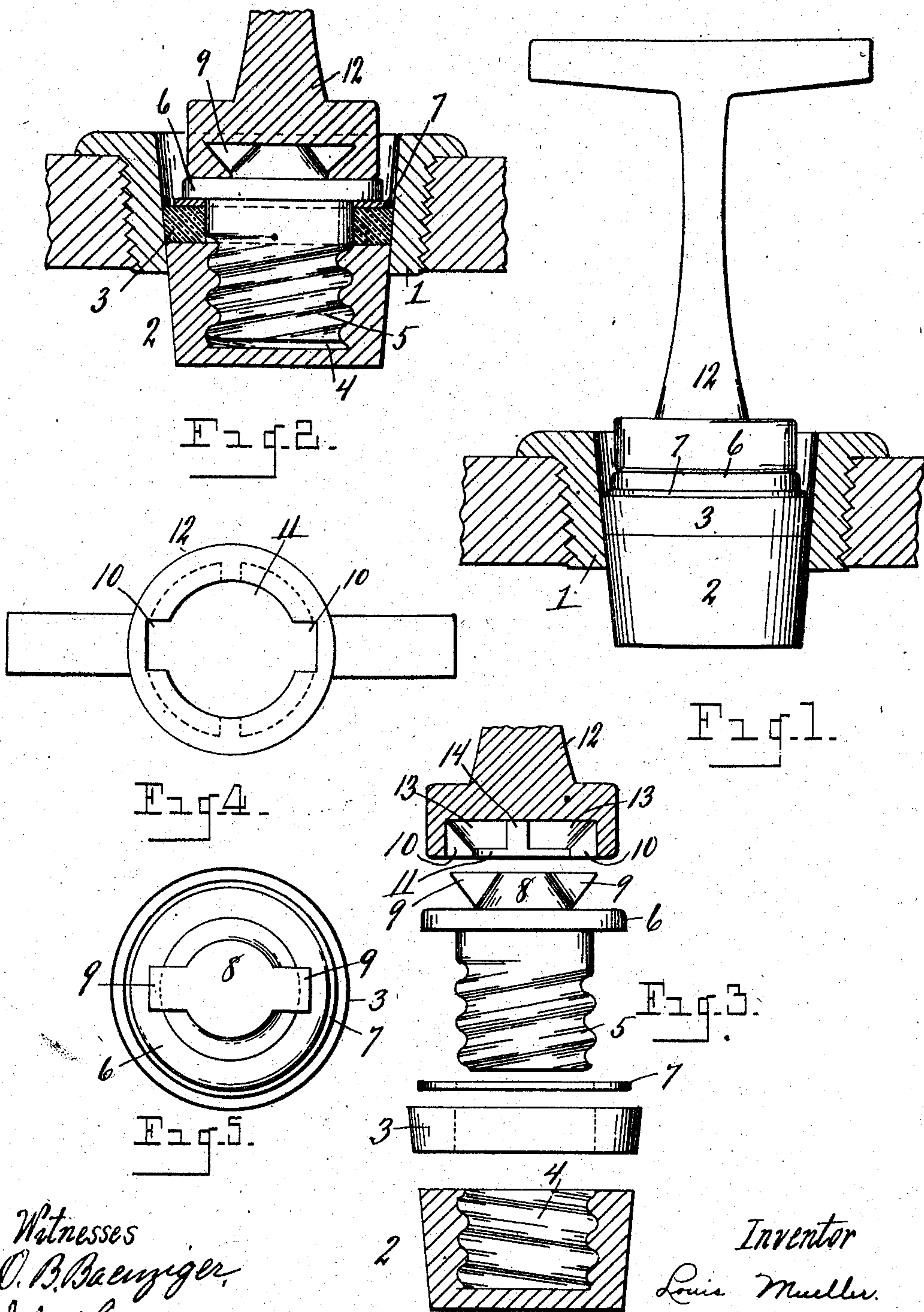
No. 796,141.

PATENTED AUG. 1, 1905.

L. MUELLER.

BUNG.

APPLICATION FILED APR. 7, 1906.



Witnesses
O. B. Baenziger,
J. H. Howlett.

Inventor
Louis Mueller.

By E. A. Wheeler & Co. atty.

UNITED STATES PATENT OFFICE.

LOUIS MUELLER, OF OWOSSO, MICHIGAN.

BUNG.

No. 796,141.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed April 7, 1905. Serial No. 254,269.

To all whom it may concern:

Be it known that I, LOUIS MUELLER, a citizen of the United States, residing at Owosso, in the county of Shiawassee, State of Michigan, have invented certain new and useful Improvements in Bungs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in bungs, more especially adapted for closing the bung-hole of beer-kegs and like packages; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The objects of the invention are to provide simple and efficient means adapted for use in connection with the ordinary bushing, whereby the bung-hole may be quickly and firmly closed in a manner to permit of the ready removal of the bung when desired.

A further object is to so construct the parts as to keep the contents of the keg or package from contact with the rubber or compressible gasket and from contact with the screw-thread which detachably joins the parts that compress said gasket.

A further object is to provide means for compressing or expanding the gasket, to tighten the bung in the bushing through the application of a suitable key, and to afford, in connection with said key, means for withdrawing the bung when loosened.

A further object is to so shape the parts with which the key engages as to prevent the removal of the bushing by use of any other tool and to so shape and position the parts as to allow the member to which the key is applied to lie within the outer end of the bushing, whereby it is protected from injury and the liability of its becoming struck through the handling of the package, so as to loosen the bung, is obviated.

The above objects are attained by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a fragmentary view of a portion of the wall of a keg or package, showing in section the ordinary bushing therein and

showing in elevation my improved bung within the bushing and the key in operative connection therewith. Fig. 2 is a sectional view through the bushing and key. Fig. 3 is a sectional view of the parts of the bung and the key disassembled, the key and plug of the bung being in section. Fig. 4 is an elevation of the end of the key. Fig. 5 is a plan view of the bung.

Referring to the characters of reference, 1 designates the ordinary bushing with a tapered aperture therethrough. Adapted to fit tightly within said bushing is a tapered plug 2, the major diameter of which is larger than the minor diameter of the tapered opening through the bushing, whereby the parts are caused to fit tightly together when said plug is crowded into the bushing, as shown in Fig. 2, the joint between the plug and bushing excluding the contents of the keg from the compressible gasket 3, which lies upon the top of the plug. As will be seen, the plug 2 is hollow and is internally threaded, as at 4, to receive the threaded stem 5 of the compression-plate 6, adapted to compress and expand the gasket 3, which is annular in form and through which the stem 5 passes. Interposed between the plate 6 and the top of said compressible gasket is a metallic washer 7 to relieve the friction between the plate and compressible gasket as the stem 5 is turned. The diameter of the compressible gasket 3 is such as to tightly fill the opening through the bushing, and said gasket is made tapering to coincide with the taper of said opening.

Upon the compression-plate 6 is formed a central conical boss 8, from which laterally project the tapered ear members 9. These ear members are adapted to pass through the opposed notches 10 in the wall of the central opening 11 in the head of the key 12. Communicating with said notches is an undercut way 13, into which the ears 9 are adapted to pass when the key is placed over said ears and turned. The way 13 is divided transversely by a wall 14, which forms a stop against which the ears engage, thereby preventing a further rotation of the key independently of the plate 6 and threaded stem 5 and causing as the key is further turned the threaded stem to screw within the plug 2, resulting in a compression of the gasket between the plate 6 and plug and an expansion of said gasket against the walls of the bushing in a

manner to securely bind the bushing in place and hold it against removal by internal pressure. To withdraw the bushing, it is only necessary to turn the key in the opposite direction to unscrew the stem 5, thereby relieving the pressure upon the gasket 3 and allowing it to contract, when by pulling outwardly on the key the bung may be removed, the ears being locked to the key for this purpose by their engagement in the undercut way in the head of the key. To detach the key from the bushing, it is only necessary to turn it so as to cause the notches 10 therein to register with the ears 9, when said key may be freely removed.

It will be noted that the plug 2 is closed at its inner end, thereby preventing the contents of the keg from coming into contact with the threads which unite the plug and the stem 5, whereby said threads are protected and prevented from becoming corroded.

By protecting the rubber gasket from the contents of the keg the life of said gasket is prolonged and said contents prevented from becoming contaminated.

This bung may be used in the bushings which are now commonly employed and because of its character may be used over and over again with equal facility.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a bushing, of a bung comprising a hollow plug fitting within said bung, an expansible gasket upon said plug engaging the wall of the bushing, a central stem screwing into the plug and having a compression-plate which engages said gasket,

and means for rotating said stem to expand the gasket against the wall of the bushing.

2. The combination with a bushing having a tapered aperture therethrough, a tapered plug fitting within said bushing, a compressible gasket lying upon said plug, a threaded stem carrying a compression-plate screwing into said plug to cause said plate to expand said gasket, and means for rotating said stem.

3. A bushing, comprising a tapered plug closed at its inner end and having a central threaded socket, a tapered gasket lying upon and coinciding with said plug, a threaded stem passing through the gasket and screwing into the plug, said stem carrying a compression-plate adapted to engage said gasket, ear members projecting from said plate and a key adapted to receive said members to lock said parts together.

4. The combination with a tapered bushing, a tapered plug closed at its inner end and having a central threaded socket, an annular compressible gasket lying between and coinciding with said plug, a threaded stem passing through the gasket and screwing into said threaded socket, said stem having a compression-plate adapted to engage said gasket and having ears projecting from the outer face thereof, and a key adapted to engage said ears to lock the threaded stem thereto and enable a rotation of said stem by the rotation of said key.

In testimony whereof I sign this specification in the presence of two witnesses.

LOUIS MUELLER

Witnesses:

O. B. BAENZIGER,

I. G. HOWLETT.