No. 680,397. Patented Aug. 13, 1901.

J. SCIOR.

BUNG-HOLE BUSHING.

(Application filed Dec. 15, 1900.)

(No Model.)

Fig. 1.

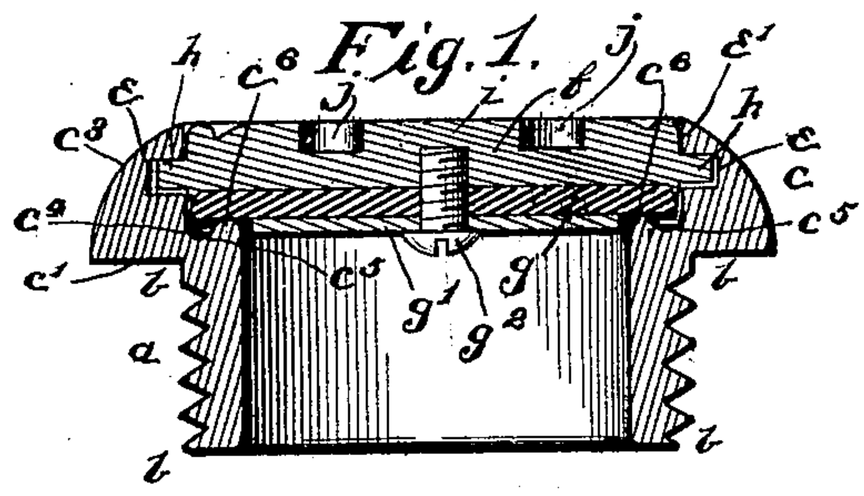


Fig. 2.

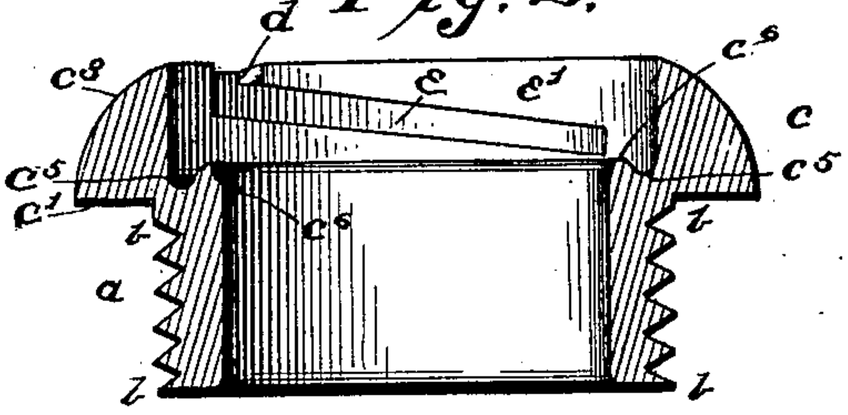


Fig. 3.

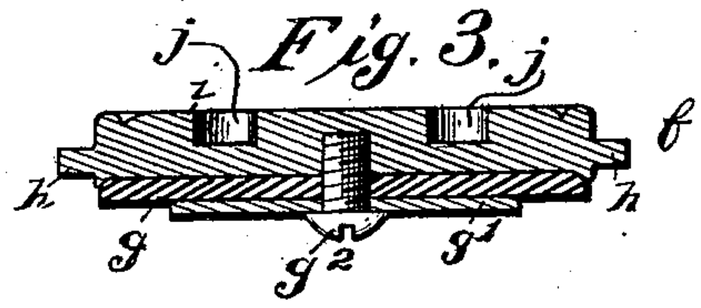


Fig. 4.

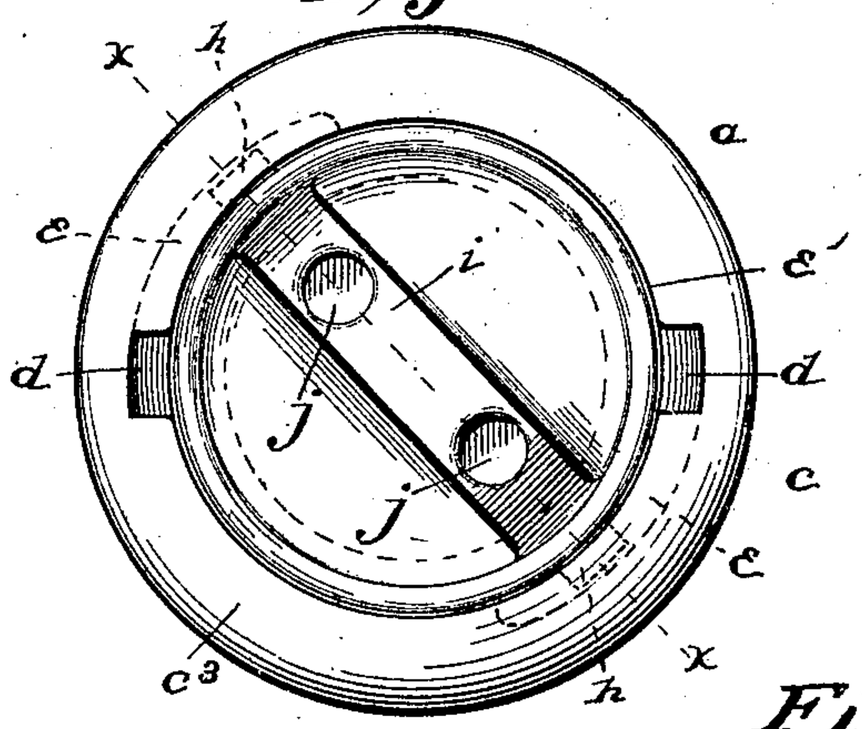


Fig. 5.

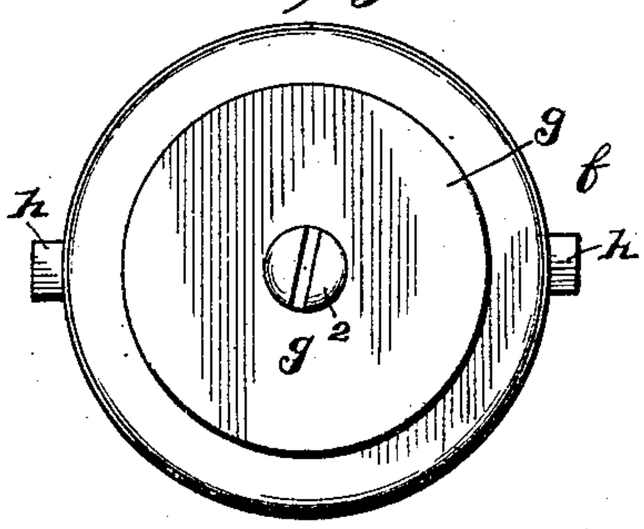


Fig. 7.

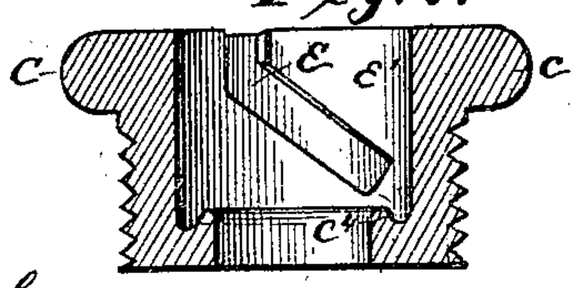
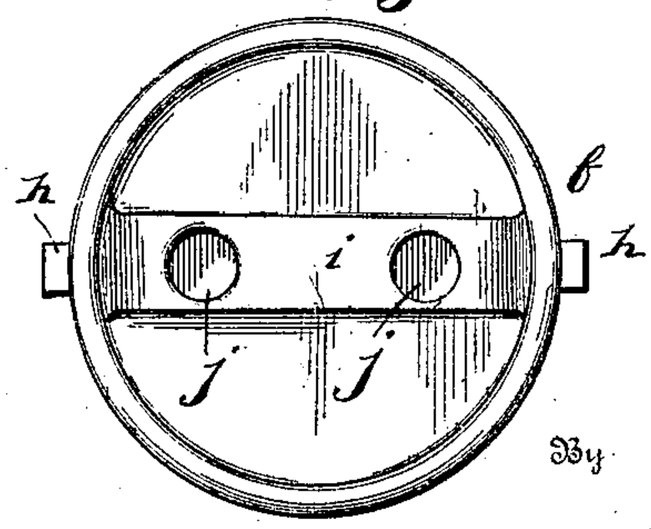


Fig. 6.



Witnesses
L. B. Handy
Ralph Sturgfield.

Inventor
John Scior.
By John H. Coss.
his Attorney.

UNITED STATES PATENT OFFICE.

JOHN SCIOR, OF MANSFIELD, OHIO.

BUNG-HOLE BUSHING.

SPECIFICATION forming part of Letters Patent No. 680,397, dated August 13, 1901.

Application filed December 15, 1900. Serial No. 39,996. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCIOR, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, (whose post-office address is Mansfield, Ohio,) have invented a new and useful Bung-Hole Bushing, of which the following is a specification.

My invention relates to improvements in bung-hole bushings, and is particularly adapted to be used on beer casks, barrels, and kegs.

The objects of my invention are, first, to provide a bung-hole bushing that can be applied to a cask or other similar receptacle from the outside after said cask or receptacle is completed; second, to construct a bung-hole bushing that will provide a simple and effective means of closing the bung-hole, thereby making an air-tight joint and preventing the escape of liquids, and, third, to provide a means of removing the cap of said bushing, leaving the bung-hole in the bushing unobstructed, whereby the contents of the cask or other receptacle can be removed. I attain these objects by means of the arrangement of parts and devices illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the bushing with the cap in place, taken on the line $x\,x$ of Fig. 4. Fig. 2 is a similar view with the cap removed, showing the receding slots. Fig. 3 is a sectional view of the cap, taken on the line $x\,x$ of Fig. 4. Fig. 4 is a top view of the bushing and cap. Fig. 5 is a bottom view of the cap. Fig. 6 is a top view of the cap, showing a modification thereof; and Fig. 7 is a vertical section of the bushing, showing a modification thereof.

Similar letters refer to similar parts throughout the several views.

The bushing a is turned any desired diameter and threaded on its exterior between the letters $b\,b\,b\,b$. A radial flange c is made integral with the threaded portion of the bushing and overlaps the bung-hole circumferentially, forming an air-tight joint, when the bushing is inserted in the bung-hole and screwed down, bringing the face c' of the flange in contact with the exterior curvature of the cask. The exterior c^3 of the radial flange is made semicircular in form to permit the cask to be rolled easily and without obstruction. The flange is bored larger in diameter than the bung-hole in the bushing, leaving a shoulder c^4. A circumferential groove c^5 is turned in the shoulder, leaving a rib c^6 extending around the bung-hole in the bushing and adapted to come in contact with the gasket on the cap. Notches $d\,d$ are cut in the flange diametrically opposed to each other and communicate with receding slots $e\,e$, formed in the inner periphery e' of the flange, said slots $e\,e$ receding in opposite directions. The cap f is turned to fit the inner periphery of the flange. A gasket g is fitted to the bottom of the cap and conforms to the diameter of the cap. The gasket g is held in place by means of the iron washer g' and screw g^2. The width of the cap and washer corresponds with the depth of the circular hole bored in the flange, leaving the face of the cap flush with the radial flange c. Projecting outwardly from the cap are lugs $h\,h$, that coincide and correspond with the notches $d\,d$. The lugs come in contact with the upper edges of the receding slots $e\,e$, and as the cap is turned it forces the gasket in contact with the rib c^6, making an air-tight joint. The cap is brought in or out of contact with the rib by means of a key-wrench having its end slotted to fit the square rib i, or, if it is desired, holes or sockets $j\,j$ can be drilled in the rib in the top of the cap or holes or sockets in the rib located on either side of the center of the cap, and a wrench having pins made integral or fitted in the end thereof can be used. This arrangement of holes or sockets in the rib obviates the necessity of weakening the body of the cap, as would be the case were they formed therein. Also, being in the rib, they are raised above the surface of the cap and are thus more accessible. Furthermore, should the appropriate tool be lost or misplaced a rod, large nail, or spike could be utilized in place thereof.

In applying my bushing to a cask or other receptacle a hole is drilled or reamed in the cask, and the bushing is inserted in the hole and screwed down, bringing the overlapping portion of the radial flange in contact with the curvature of the cask. The cap is then inserted in the hole bored in the flange with the lugs coinciding with the notches. A key-wrench of suitable shape is then applied to

turn the cap, forcing the gasket in contact with the circumferential rib. When it is desired to remove the cap, it is turned in an opposite direction until the lugs coincide with the notches. The cap can then be removed, thereby leaving the bung-hole clear.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a closure for bung-holes, the combination with an exteriorly-threaded bushing provided with an integral flange fitting around the bung-hole, the aperture inclosed by the flange being of greater diameter than the bung-hole, the bushing provided with an upwardly-extending wall on its interior edge, of a cap, means for producing a tight joint between the cap and bushing, a locking means for the cap and bushing, and a rib extending diametrically across the outside of the cap, the rib provided with a plurality of holes or sockets formed therein on either side of the center of the rib thereby permitting the unfastening of the cap by any one of a plurality of means.

Signed by me at Mansfield, Ohio, this 4th day of December, 1900.

JOHN SCIOR.

Witnesses:
JOHN H. COSS,
JOHN C. CAMATTA.