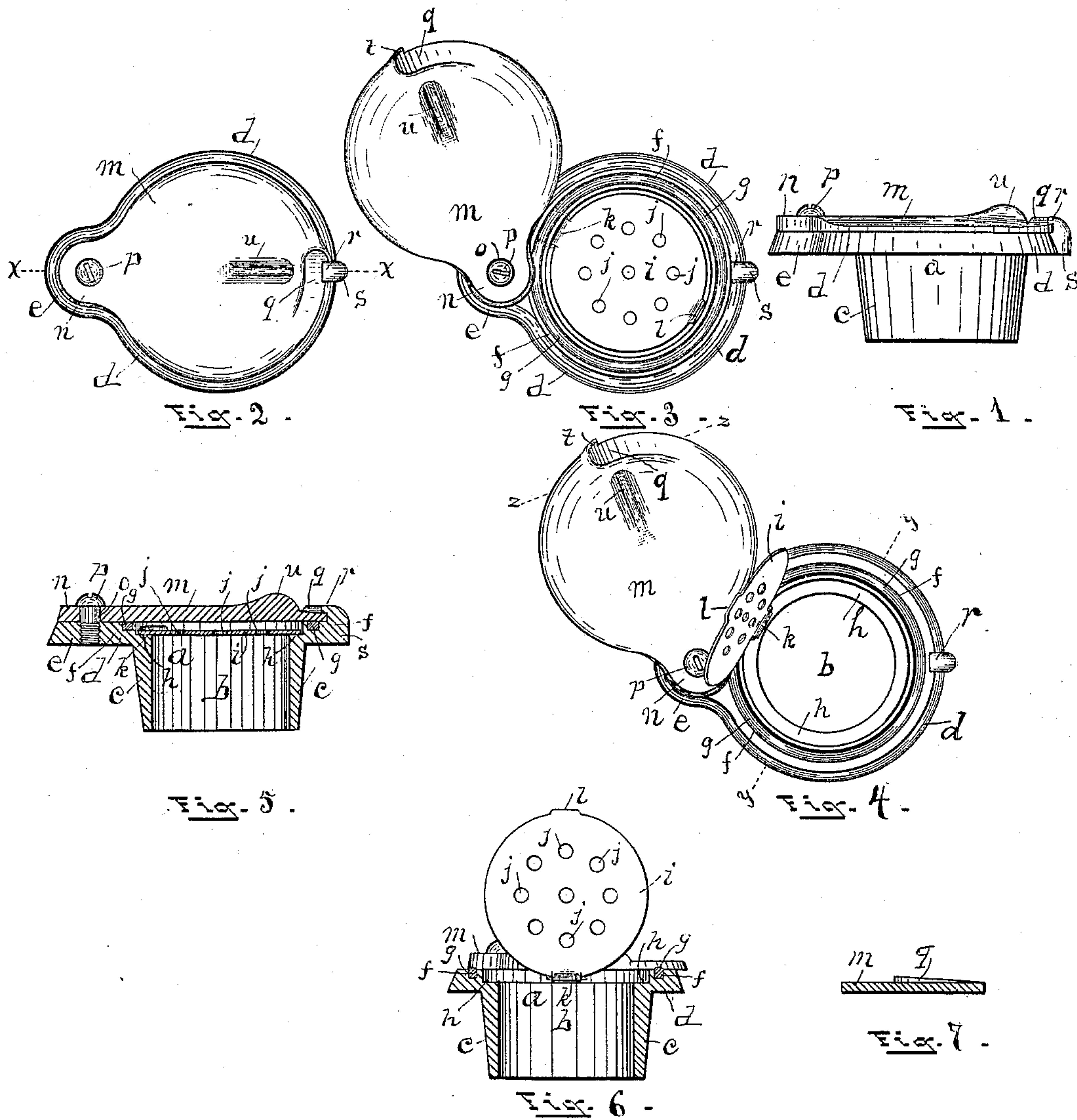


(No Model.)

J. LOURIM.
BARREL BUNG.

No. 405,425.

Patented June 18, 1889.



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JOHN LOURIM, OF WEST BAY CITY, MICHIGAN.

BARREL-BUNG.

SPECIFICATION forming part of Letters Patent No. 405,425, dated June 18, 1889.

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To all whom it may concern:

Be it known that I, JOHN LOURIM, a citizen of the United States, residing at West Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Barrel-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 letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in barrel-bungs, and is more especially designed for use in barrels in which liquids of various kinds are stored to be drawn off as required.

The invention consists in a metallic bushing with a central opening and having a lower portion fitted to pass into the bung-opening in the barrel and provided on its upper surface with a packing strip or ring and a pivoted cap-piece adapted to swing over and rest upon the said packing-ring and close the central opening, and a hinged and perforated cap-piece fitted to cover the central opening inside of the packing-ring to allow a vent to the barrel when the pivoted cap is displaced or moved from over the opening.

The invention also consists in the combination and arrangement of the several parts which are used in the construction of the improved device.

The first object of my invention is to provide a bung by which a bung-orifice can be effectually closed to prevent evaporation and at the same time may be easily opened and closed.

A second object is to provide a means whereby proper vent may be easily given to a barrel through the bung-opening and still retain the orifice closed against the entrance of insects and dirt into the barrel and also prevent an undue amount of evaporation of the contents of the barrel; and a third object of my invention is to provide a device for closing the bung-orifice in a barrel, which may be operated to allow a full or part opening or a vent without disconnecting any of its parts, whereby the liability of losing the portions of the device is obviated.

I attain these objects by means of the devices illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my improvement with the parts in position closing the bung-orifice. Fig. 2 is a top or plan view of the same. Fig. 3 is a plan view of the same with the cover removed and with the inner cap closed. Fig. 4 is the same with the inner perforated cap-piece removed and the central orifice open. Fig. 5 is a section of Fig. 2 taken at *x x*. Fig. 6 is a section of Fig. 4 taken at *y y*. Fig. 7 is a section of the outer cap-piece taken at *z z* in Fig. 4.

Similar letters indicate like parts throughout the several views.

a represents a bushing having a central opening *b* and a downward-extending portion or flange *c*, which is adapted to fit into the bung-hole, and which is preferably made tapering, with the smallest diameter at its lower edge thereof, so that it will easily pass into the bung-hole, and can be crowded to fit perfectly therein.

d is a rim or flange which projects outwardly from the upper portion of the periphery of the bushing *a*, and from one side of the flange projects a lug *e*, and in the upper surface of the flange and surrounding the central opening is formed a groove *f*, into which is fixed a packing-ring *g*, of rubber or other suitable pliable material.

Within the upper portion of the opening *b* is formed a seat *h*, and *i* is a cover provided with the perforations *j* and adapted to fit upon the seat, and is hinged at *k* to the bushing, while the edge opposite the hinge *k* is provided with a lip *l*, with which to fit the cover.

m is a cover provided with the portion *n* projecting from one side of its periphery, and an opening *o* is arranged in the portion *n*, through which is passed the pivot *p*, the lower end of the pivot being tapped into the lug *e*, while at the side of the cover opposite the pivot is provided an upwardly-inclined surface *q*, arranged to pass beneath the hook *r* of the portion *s*, which projects upwardly from the outer edge of the flange *d*.

t is a stop raised beyond the edge of the cover at a point coincident with the highest portion of the incline *q*, and is arranged to

engage with the side of the portion *s* and prevent the incline *q* from passing entirely beyond the hook *r*.

u is a thumb-piece projecting upwardly from the upper side of the cover *m*, with which to swing the cover upon the pivot *p*.

For use the tapering portion *c* is pressed firmly into the bung-orifice of the barrel, and the cover *m* is closed over the opening *b*, and the pivot *p* being adjusted by the screw-thread thereon to press the adjacent side of the cover firmly upon the packing, while the incline *q*, engaging with the hook *r* on the opposite side of the cover, brings the cover to a firm bearing upon the packing, which effectually and completely closes the opening *b* against the passage of liquid or gases; and should it be desirable to form a vent for the barrel the cover *m* is swung outward, as shown in Fig. 3, and the inner cap-piece *i*, having the perforations *j*, allows the air to pass into the barrel, but excludes insects and dirt from the barrel, and is commonly used in this form for drawing liquids from the barrel by a faucet, &c.

The inner cover *i* is raised, as shown in Fig. 4, and the opening *b* is then unobstructed for the insertion of a tunnel, pump, or pipe, as required.

It will be seen that the inner cover is hinged in a position so that when the covers are in a position to provide a full opening *b*, as shown in Fig. 4, the cover *m*, on being swung to a position for closing, first engages with the cover *i* and forces it to a closed position on the seat *h*, so that no special attention need be given to closing the inner cover, and the amount of vent may be regulated as required, if the portions *j* are of too great an area, by slightly moving the cover *m* from a closed position.

By the use of this improvement a great saving of the contents of the barrel is obtained in liquids of a volatile nature and

easily evaporated, as the opening may be closed securely without the use of detached or separate parts, and all evaporation entirely shut off, while for use in barrels containing liquids of a less volatile nature the vent may be regulated and all dust and insects excluded from the barrel with very little attention. It is not, however, in all cases necessary to provide the device with the inner cover *i*, and this portion may be omitted, if desired, and the cover *m* then operates in the same manner for closing the central opening; and the groove *f*, with its packing-ring *g*, may be omitted in some cases, and the upper surface of the flange *d* would then be made smooth to fit to the under side of the cover *m*, to form a close joint.

What I claim as my invention is—

1. In a barrel-bung, the combination, with the bushing *a*, having the tapering portion *c*, and the flange *d*, provided with the groove *f* and the lug *e*, of the packing-ring *g* within the groove, the cover *m*, secured by the pivot *p* to the lug *e* and provided with the incline *q* and the stop *t*, and the portion *s*, projecting upwardly from the said flange *d* and provided with the hook *r*, engaging with the said incline *q*, substantially as set forth.

2. The combination, in a barrel-bung, of the bushing *a*, having in its central opening a seat *h* and the lower tapering portion *c*, and provided with a flange *d*, having the groove *f* and packing-ring *g*, the cover *m*, pivotally secured to the upper side of the flange *d*, with the perforated cover *i* upon the said seat *h*, and with one edge hinged to the bushing *a*, substantially as set forth.

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

JOHN LOURIM.

Witnesses:

JAS. E. THOMAS,
W. H. POWER.