

(No Model.)

N. FUCHS.
BUNG.

No. 518,811.

Patented Apr. 24, 1894.

Fig. 1.

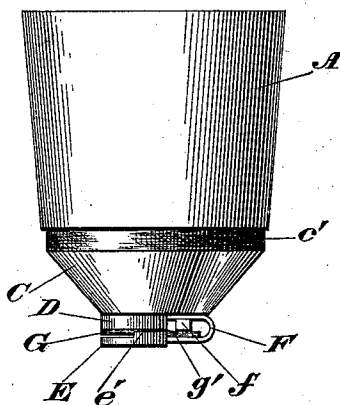


Fig. 2.

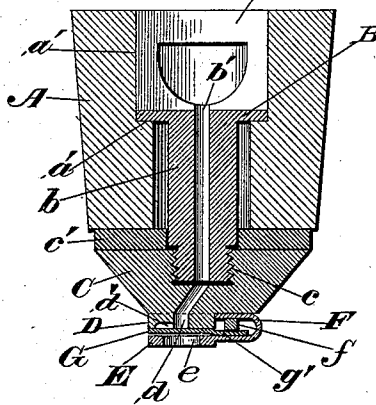


Fig. 3.

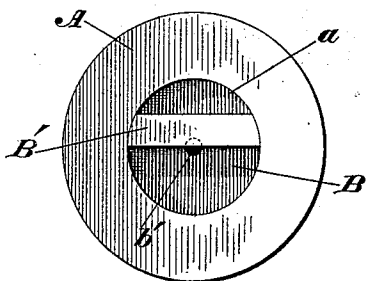


Fig. 4.

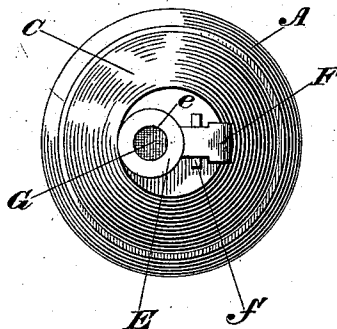
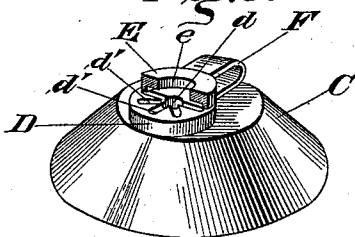


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

NATHAN FUCHS, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF TWO-THIRDS
TO THOMAS CRANEY AND THOMAS C. STOKES, OF SAME PLACE.

BUNG.

SPECIFICATION forming part of Letters Patent No. 518,811, dated April 24, 1894.

Application filed December 16, 1893. Serial No. 493,846. (No model.)

To all whom it may concern:

Be it known that I, NATHAN FUCHS, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Bungs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention is an improved bung and vent for barrels and other vessels containing effervescent, volatile, or aromatic liquors; its object being to produce a combined bung and vent not requiring any special bushing and of great durability.

The invention consists in the novel construction and combination of parts summarized in the claims, and more fully hereinafter described and illustrated in the drawings.

Referring to the drawings by letters of reference marked thereon, Figure 1 is a side view of the combined bung and vent. Fig. 2 is a central vertical sectional view of the same; Fig. 3 a top view; Fig. 4 a bottom view, Fig. 5 a detail view of the vent valve, with the rubber valve removed.

A designates the body of the bung, which may be formed of wood, compressed fiber, or any other desired substance, and is about the shape and size of ordinary bungs, but has a central bore the upper portion *a* of which is larger than the lower portion, thereby forming a shoulder *n'* within the bore. Upon this shoulder is seated a metallic disk B, fitting snugly within the upper portion of the bore, from the upper face of which rises a perforated ear B' which can be engaged by a hook or other suitable instrument to extract the bung. From the disk depends a tube *b*, extending below the bottom of the bung and exteriorly threaded on its lower end. The opening in the tube is continued through the disk, as indicated at *b'* so that there is a clear passage through the bung.

C designates a metallic washer having a central interiorly threaded opening *c* by which it is screwed onto the lower end of tube *b*, or vice versa, a compressible washer *c'* of

leather, rubber, or other suitable material being interposed between the end of the bung and washer C, so that a gas tight joint is made between the end of bung and washer C. As shown washer C is cylindro-conical, and protects the lower end of the bung from the action of the liquids or gases in the barrel or vessel to which the bung is applied.

Secured to the washer C directly under the opening *c*, is the vent-valve. The valve-seat D may be formed on the lower side of washer C, under opening *c*, and has a small aperture *d*, communicating with the opening *c* and through it, tube *b* and opening *b'*, with the atmosphere exterior to the barrel. In the face of the seat radiating from aperture *d* are several short channels *d'* the object of which is to prevent too great adhesion of the valve to the seat when air should be sucked there-through while the contents of the vessel are being withdrawn and to insure the closing of the valve by any gases or liquids which may try to escape when the liquid escape is closed. Under this seat, and in close proximity thereto is a valve guard plate E, which as shown has a central opening *e*, through which the gases can act directly against the face of the valve, and also has side flanges *e'* which protect the side edges and also prevent lateral displacement of the valve. The guard E is upheld by a U-shaped support F, one leg of which is soldered or otherwise secured to washer C, as shown. The valve G may be of any suitable kind, for economy I employ rubber, but do not confine myself to the valve shown in drawings. The valve is cut out of sheet rubber having a head portion adapted to fit neatly over the seat, and between it and the guard, and a shank portion *g*, which is secured between the legs of the support F by a wedge *f*, as shown in the drawings, so that the valve can be readily renewed when worn out.

In practice the valve seat D may be formed integral with washer C, or the valve seat D, the guard E, and the support F, may be stamped out of sheet metal and secured to the washer C by solder or other suitable means.

From the foregoing it will be understood

that I have a combined bung and vent, the bung body forming the support for the vent, and the vent devices, reinforcing the bung, and serving as a means for facilitating its extraction. When the body is worn out the metallic portions can be readily applied to another body, or the body replaced.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent thereon, is—

1. The herein described bung, consisting of a body having a central shouldered opening, and a metallic tube inserted in said opening having a disk on its upper end fitting upon the shoulder of said opening and threaded on its lower end: and an ear rising from said disk, within the bore, a compressible washer slipped on the lower end of the tube, against the end of the body, and a metallic conical washer having a screw-threaded recess to engage the threaded end of the tube and screwed thereon so as to compress the compressible washer, and also having a passage communicating with the bore of the tube, and a valve seat around the exterior end of the passage, a valve guard below said seat rigidly secured

to the face of the washer, and a detachable valve interposed between said seat and guard, substantially as described.

2. The combination of the body having a central shouldered bore, a disk seated on the shoulder of the bore, and a tube depending from said disk through the body, a washer screwed on the lower end of said tube, having a passage communicating with the bore of the tube, a valve seat on the washer at the outer end of said passage; a valve guard suspended below said seat by a U-shaped support having a central opening, directly under the valve, and upstanding flanges at its sides to prevent lateral displacement of the valve, and a valve fitted between said guard and seat and having a shank lying between the legs of the U-shaped support, and detachably secured thereto, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

NATHAN FUCHS.

Witnesses:

W. T. STOKES,

CARL JOHNSTON.