W. Calhoun.

Bung.

No. 85,903. Patented Jan. 19, 1869.

Fig: 1.

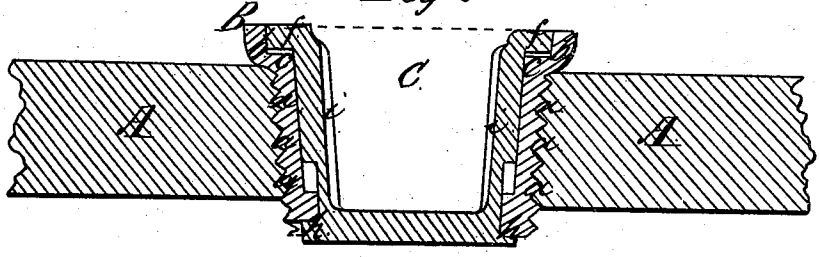


Fig: 2.

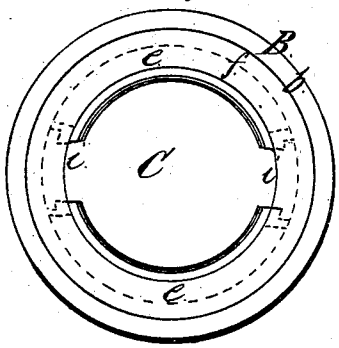


Fig: 3.

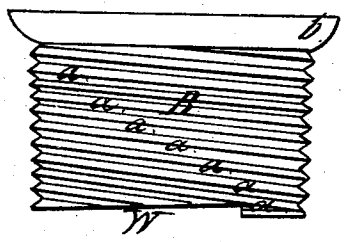


Fig: 4.

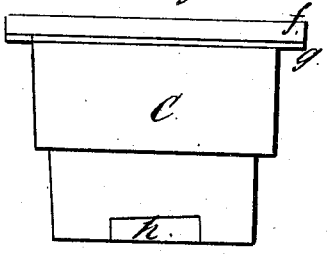
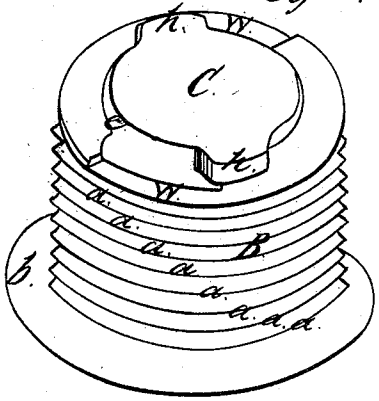


Fig: 5.



Witnesses
Jas A. Buckbee Jr
John Gibbons.

Inventor
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UNITED STATES PATENT OFFICE.

WALTER CALHOUN, OF WEST TROY, NEW YORK.

IMPROVEMENT IN BUNGS.

Specification forming part of Letters Patent No. **85,903**, dated January 19, 1869.

To all whom it may concern:

Be it known that I, WALTER CALHOUN, of West Troy, county of Albany, State of New York, have invented a new and Improved Mode of Constructing Bungs for Vessels for Liquids; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, in which—

Figure 1 represents a vertical cross-section of the invention. Fig. 2 is a vertical view from the top. Fig. 3 is a perspective view of outer portion of bung. Fig. 4 is a perspective view with part of bung. Fig. 5 is a perspective view of bung inverted.

The nature of my invention consists of constructing a bung in two parts. One I call the "bushing," and the other the "stopper." The bushing consists of a cylinder, slightly tapered, furnished on its outer periphery with a screw-thread, commencing at the bottom and rising up to a flange above. A seat is cut in the top, inside, about one-fourth of an inch deep and three-sixteenths of an inch wide, and an orifice runs through from the said seat to the bottom, so that the bushing is but a shell. Two lips, one on each side, run nearly around, leaving a space of about three-fourths of an inch between the two ends of both lips. This space is to receive a wrench, to screw the said bushing in the hole made in the stave of the vessel. The bottom edges of this bushing are made with two inclines or wedge-shaped surfaces, each commencing at the wrench-space's farther side and running to the said space's near side; and when the screw-thread on the outside is that of a right-hand screw the said wedge-surfaces run to the right in thickness, and when the screw is left-handed they run to the left. The stopper is made a shell and closed at the bottom, and is furnished with a flange to fit in the seat made in the top of the bushing, and has rubber or leather packing placed between. At the bottom, on the sides, are placed two lips, wedge-shaped on their upper sides, and when the stopper is placed in the bushing the said lips pass through the spaces between the inside lips of the bushing below the bottom-surface line of the said bushing when the said stopper is turned, so that the projecting lips will impinge and work on the wedge-like surfaces of the bushing in which the stopper works, thus causing the stopper to draw its upper flange, with its packing, down upon its seat, rendering the whole perfectly tight. This manner of constructing a bung differs from those bungs made with a bushing and a stopper that have their locking arrangement placed on the flanges of the said bushing and the stopper, insomuch that, when and where the locking parts are placed on the upper flanges, the drawing power is not perfect enough to bind every part of each tight to the other, which we can see in the principle of locking as applied to hose-couplings and to such bungs as have been so constructed; but, by placing the locking-lips of the stopper at a good distance from the packed flange, and having the said locking-lips impinge and work on the wedge-formed surfaces of the lower end of the bushing, and considerably within the line of the flange of the stopper and its seat, the drawing power exerted being under the above-mentioned circumstances will draw the said packed flange of the stopper tightly and evenly down on its seat, the same as if drawn with a bolt run through the center of both.

To enable others skilled in the art to make and use my invention, I will proceed to describe it in reference to the drawings making a part of this specification, and the letters of reference marked thereon, the same letters indicating like parts.

A, Fig. 1, represents the stave of any ordinary barrel, cask, &c., furnished with the usual bung-hole. B is a bushing made of cast metal and furnished with either a right or left hand screw-thread, *a a*, and a flange, *b*. Cut vertically in the top of the said flange *b* is a seat, *c'*. An opening runs through the whole length of the said metal bushing B, and is partially filled by the two projecting inside lips *e e*, Fig. 1, and shown by dotted lines in Fig. 2. The surfaces of the bottom or lower edges are made wedge-shaped, as W, Figs. 3 and 5, and shown by dotted lines in Fig. 1, and with an outside left-hand screw. The thickness of the said wedge runs toward the left, and, with a right-hand screw, it runs toward the right; or, in other words, the line of inclination of the screw-thread *a* runs in a contrary direction to those of the surfaces W.

C, Fig. 4, represents the stopper, made in a

shell and closed at the bottom, and furnished with a flange, *f*, at the top, and provided with a rubber or leather packing, *g*, on its under side. The said stopper C is also furnished with the lips *h h*, Figs. 1, 4, and 5. The upper-surface lines of the said lips are made to correspond with the bottom-edge surface W of the bushing B, and their thickness runs in opposite direction to those of W on the metal bushing B. The inside surfaces of the stopper C are furnished with shallow recesses *i i*, running vertically down from the top to the inside of the bottom. The said recesses are to receive a wrench or any suitable instrument to secure the one to the other.

The mode of operating this bung is as follows: The bushing B, Fig. 3, is first screwed into the stave A, Fig. 1, by means of a suitable wrench entering the spaces formed by the ends of the inner lips, *e e*, Fig. 2. The stopper C is then set into the bushing B, so as to permit the lips *h h* of the said stopper passing through the spaces formed by the inner lips of the bushing B, the flange *f* of the stopper C in the meanwhile dropping into the seat *c* of the metal bushing B, and when thus set in the stopper is turned by a wrench inserted in the recesses *i i*. When the lips are moved over the wedge-shaped surface W, on the lower edge of the bushing B, the said lips *h* bind and draw the flange *f* of the stopper C close down with its rubber packing on the seat *c* of the flange *b*.

The object of making the wedge-shaped surface W of the lower edge of the bushing B run in its thickening way the same as that of the screw outside is that, when the stopper is to be tightened up, the operation of tightening will tend also to screw the metal bushing B tighter in the barrel.

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

The bung consisting of the bushing B and the stopper C, constructed as herein described, for the purposes set forth.

WALTER CALHOUN.

Witnesses:
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