

A. D. BEHAN.

Bungs and Bushing.

No. 134,242.

Patented Dec. 24, 1872.

Fig. 1.

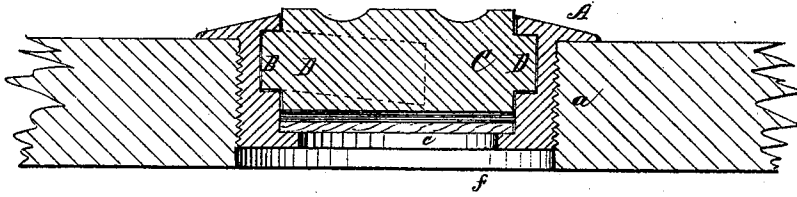


Fig. 2.

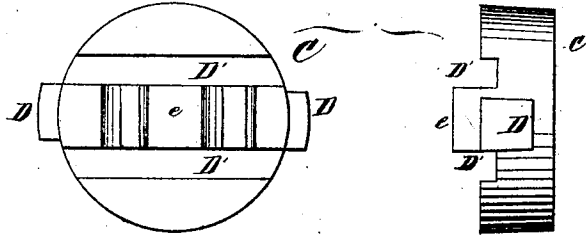


Fig. 3.

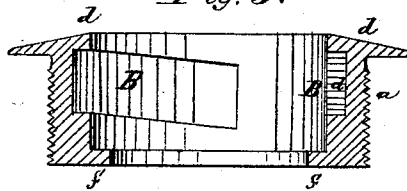


Fig. 5.

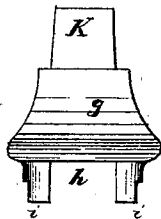
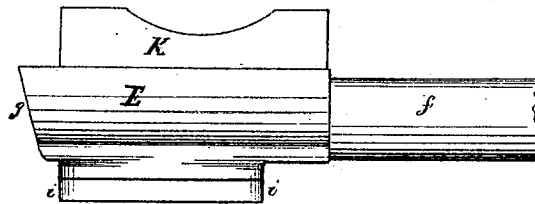


Fig. 4.



Witnesses:

Wm. J. Rogers.
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UNITED STATES PATENT OFFICE.

ALEXANDER D. BEHAN, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN BUNGS AND BUSHINGS.

Specification forming part of Letters Patent No. **134,242**, dated December 24, 1872; antedated December 21, 1872.

To all whom it may concern:

Be it known that I, ALEXANDER D. BEHAN, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Bungs and Bushings for Casks and Barrels, of which the following is a specification:

My invention has for its object to improve upon the bungs and bushings now generally employed for casks and barrels; and it consists in forming a metallic bushing with an annular inwardly-projecting bottom flange, forming a seat for the reception of suitable packing, as hereinafter described. It also consists in combining, with a bushing having an inwardly washer-supporting flange, recesses which lead into concentric inclined cam-shaped grooves upon its internal periphery, into which fit lugs formed upon the circumference of a peculiar-shaped bung. It also consists of a bung having grooves upon its face for the grasp of the wrench, and projections or lugs upon its circumference which engage with the inclined grooves of the bushing, by which means the bung is adapted to be forced down upon the packing, using a wrench which is recessed upon one side and raised upon the opposite, whereby both the bushing and bung can easily and effectually be adjusted with reference to each other and to the bung-hole.

In the drawing, Figure 1 represents a longitudinal central section of my improved metallic bung and bushing attached to a barrel. Fig. 2 are views of the bung detached from the bushing. Fig. 3 is an inside view of the bushing. Fig. 4 is a side view of my improved wrench for operating the bung and bushing; Fig. 5, an end view of the same.

A represents the metallic bushing of the bung, provided with an external screw-thread, *a*, which is intended to be screwed into the stave of the barrel or cask. At the bottom of this bushing an annular flange, *b*, projects inwardly, forming a seat or support for a backing, *c*, of wood, rubber, leather, or other suitable material. Upon the inner portion of the bushing are formed two downwardly-projecting notches or recesses, *d d*, from each of which,

around the inner circumference of the bushing, extend concentric cam-shaped grooves *B B*, which are inclined downward from the top toward the bottom of the bushing. *C* is the metallic bung, provided with feather lugs or projections *D D*, which enter the recesses *d d*, and are then forced around and down into the grooves *B B*, by the device described hereafter, so as to compress the packing *b* between the bung and the flange *b*, thus forming a liquor and air tight joint. Upon the upper portion of the bung *C* are formed two parallel grooves or slots, *D' D'*, leaving a raised projection, *e*, which is grasped by the device, as will be hereinafter described. *E* represents my improved device for operating the bung and bushing, which is provided with a handle, *f*, and a head, *g*. Upon one side of this head is a recess, *h*, forming raised projections *i i*, which engage in the grooves *D' D'*, so as to turn the bung and its lugs down into the inclined cam-shaped grooves, in order to compress the packing so as to produce a tight joint. Upon the opposite side of the head *g* is formed a raised portion, *k*, which is for the purpose of attaching and removing the bushing *A*, which is done by placing the portion *k* in the notches or recesses *d d* in the bushing, and turning the same.

By means of the annular projecting flange at the bottom of the bushing, the washer or packing is easily placed and retained in position, and if the washer be made a full disk, as shown in Fig. 3, the contents of the barrel or cask will be kept out of contact with the metal bung, and no injurious effect upon the liquor arise from the use of the metal bung. I propose to make the bung of any desired material that may be found best adapted for the purpose.

The bushing and bungs may be applied to old as well as new casks or barrels, and the whole be at any time readily and easily removed without the usual method of hammering around that portion of the barrel where the bung is located, to remove the same.

What I claim as my invention is—

1. The metal bushing *A*, formed with the annular inwardly-projecting flange or packing-

seat *c*, and cam shaped inclined grooves B B, in combination with the bung C having the lugs D D, for the purpose set forth.

2. The metal bung C, formed with the lugs D D, parallel slots D' D', and raised portion *e*, in combination with the bushing A, having the bottom inwardly-projecting flange *e*, recesses *d d*, and cam-shaped inclined grooves

B B, all constructed substantially as described.

To the above I have signed my name this 13th day of May, 1872.

A. D. BEHAN.

Witnesses:

GEO. K. COLLINS,
STEPHEN BOSTELL.