

(No Model.)

J. KIRBY.

BUNG.

No. 337,961.

Patented Mar. 16, 1886.

Fig 1.

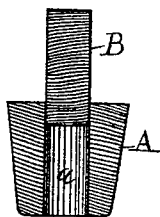


Fig 2.

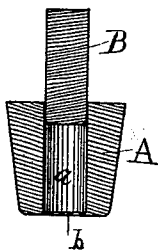


Fig 3.

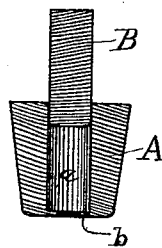
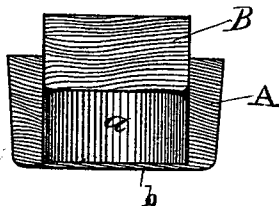


Fig 4.



WITNESSES:

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JOSIAH KIRBY, OF CINCINNATI, OHIO.

BUNG.

SPECIFICATION forming part of Letters Patent No. 337,961, dated March 16, 1886.

Application filed December 17, 1885. Serial No. 155,884. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH KIRBY, of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Bungs, of which the following is the specification and description.

The object of the invention is to provide a better form of bung and plug than has yet been devised, which will be both a tight stopper prior to venting, and at the same time be easy to vent and efficient to hold and firmly seat the ordinary venting apparatus or faucet in receptacles like barrels or casks for beer, which are particularly required to have tight stopping, ready venting, and an unbroken and firm seat to hold the vent or faucet.

If a wooden plug be used in a bung bored from face to face, the plug and bung must be made, to be effective as a stopper, with the grain of both perpendicular to or across the axis of the bung, and this is so described in my former patent of the United States, No. 111,352, dated January 31, 1871; but in the present improved bung the wall of the bung surrounding the bore is made so as to be compressible at its interior upon the plug—that is, the wall is made so thin that the act of driving the bung into the cask or bushing not only crushes to some extent the exterior perimeter of the bung, which must be the case in driving any firm bung of wood, but compresses the perimeter of the bore at the interior of the bung by the act of driving the bung into its bushing or bung-hole. The plug being before inserted and held within the bore, receives and takes up the compressed wall of the bung, and the plug and bung so driven into the bung-hole or bushing become together an impervious and tight stopper, much more so than in the bung made as described in my said Patent No. 111,352, in which first invention and patent the idea is not contained of the wall of the bung made so as to be compressible, but made firm and thick, reliance being had in that invention upon the plug and its grain as related to the bung and its grain. I also combine, preferably, with the plug and bung having a compressible wall, as herein described, a supporting flange, projection, or web left at the bottom of the bore, not to effect any stoppage of gas or liquid, and not adequate

to that, but simply to uphold the plug within the bore and prevent its falling through and out prior to driving the bung into the bung-hole, and securing the plug firmly by the compression of the bung.

Therefore the present invention consists in a bung with a central bore to contain a plug, and combined with a plug, both plug and bung having the grain perpendicular to or crosswise to the axis of the bung, so that when the surfaces of the plug and bung are compressed upon each other they shall intercept any gas or liquid tending to escape from the receptacle in which the bung is placed, and with the wall of the bung made so thin as to be capable of such compression by the act of driving into the bung-hole or bushing, and preferably made with a thin supporting flange or web at the bottom of the bore.

In the accompanying drawings, Figure 1 represents a vent-bung, (marked A,) with a central bore or opening, *a*, into which the venting-tool is to be inserted and finally held seated. The plug B is shown, which is of the diameter of the bore *a*, and is inserted in the bore prior to driving the bung into the bung-hole. By comparing this Fig. 1 with the bung in my former patent, No. 111,352, it will be immediately perceived how the shape of the bung has been altered in order to effect its compression at the interior by the act of driving without breaking the bung.

The real difficulty with all the old bungs is the liability of fracture when vented wherever a bung was used with a portion left unbored stout enough to be impervious to gas acting under as high pressure as is the case with lager-beer casks; or, if reliance was had upon my former invention described in Patent No. 111,352, the sides of the bung were not compressible upon the plug, and without that the plug alone being driven into the bung did not prove a complete and impervious stopper for such gas.

Fig. 3, in the accompanying drawings, represents a vent-bung substantially as described herein, combined with a flange, *b*, at the bottom of the bore to uphold the plug. Fig. 2 represents a vent-bung substantially as described combined with a film or diaphragm at the bottom of the bore to uphold the plug.

A faucet-bung is no different from a vent-bung, except in the size of the bore, the faucet-tool as now used in lager-beer casks being larger than the vent-tool, and being used in the head instead of the stave of the cask.

Fig. 4 represents such a faucet-bung made substantially as described in this specification, having, in combination with the other parts, the support for the plug at the bottom of the bore, the same as seen in Fig. 2. The open bore or the flange support or projection are the same in the faucet-bung as in the vent-bung, and need no further or different description.

What I claim as my present invention and improvement is—

1. A bung made, substantially as described, with a bore to contain a plug, and in combination with a plug to fit in said bore, both plug and bung having the grain of the wood composing them perpendicular to or crosswise to the axis of the bung and to the direction of the gas or liquid to be stopped, the sides of the bung made so thin as to make the bung compressible at its interior bore upon the plug by the bung being driven or forced into the bung-hole or bushing of the receptacle, substantially as and for the purposes set forth.

2. A bung made, substantially as described, with a bore to contain a plug, and in combination with a plug to fit in said bore, both

plug and bung having the grain of the wood composing them perpendicular to or crosswise to the axis of the bung and to the direction of the gas or liquid to be stopped, the sides of the bung made so thin as to make the bung compressible at its interior bore upon the plug by the bung being driven into the bung-hole or bushing of the receptacle, said bung being combined with a support for said plug, provided at the bottom of said bore, substantially as and for the purposes set forth.

3. A bung made, substantially as described, with a bore to contain a plug, and in combination with a plug to fit in said bore, both plug and bung having the grain of the wood composing them perpendicular to or crosswise to the axis of the bung and to the direction of the gas or liquid to be stopped, the sides of the bung made so thin as to make the bung compressible at the interior bore upon the plug by the bung being driven into the bung-hole or bushing of the receptacle, said bung being provided with a diaphragm at the bottom of said bore as a support for said plug, substantially as and for the purposes set forth.

JOSIAH KIRBY.

Witnesses:

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EDWARD MAUS.