F. X. WAGNER.

BUNG AND BUSH.

No. 185,370. Patented Dec. 12, 1876.

Fig. 1.

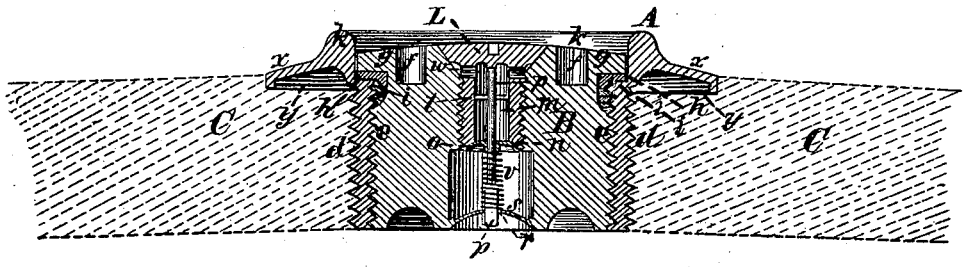


Fig. 2.

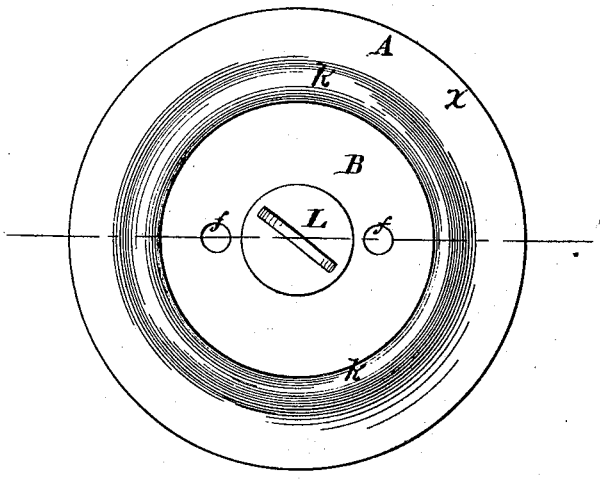
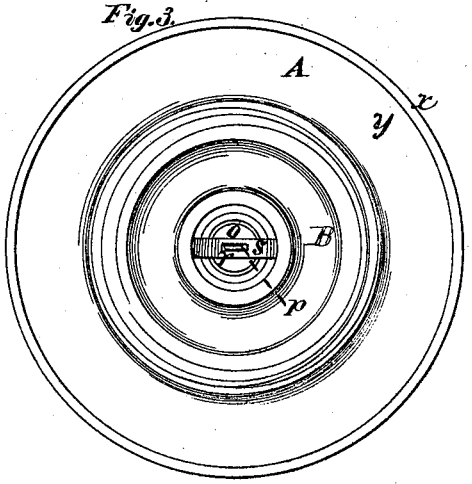


Fig. 3.



Witnesses
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by his Attorneys
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UNITED STATES PATENT OFFICE.

FRANZ X. WAGNER, OF NEW YORK, ASSIGNOR TO GUSTAV A. WAMBACH, OF BROOKLYN, N. Y.

IMPROVEMENT IN BUNGS AND BUSHES.

Specification forming part of Letters Patent No. **185,370**, dated December 12, 1876; application filed October 30, 1876.

To all whom it may concern:

Be it known that I, FRANZ X. WAGNER, of the city, county, and State of New York, have invented an Improved Bung and Bush for Casks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

My improved bung and bush are designed more particularly for lager-beer casks; but they are applicable to any cask used for containing and transporting any liquid substance, and from which cask such liquid substance is intended to be subsequently drawn through a faucet or spigot-hole.

The invention consists in a peculiarly-constructed bush, and in a peculiarly-constructed bung, provided with an independent and automatically-closing vent-valve and attachments, which may either be tightly closed to prevent escape of the liquid contents of a cask or access of air to the interior of such cask, or may be opened to allow ingress of air to the interior of such cask, to permit the free drawing off of the liquid contents of such cask through a faucet or spigot-hole.

Figure 1 in the accompanying drawing is a vertical section of my improved bung and bush inserted in the bung-hole of a cask. Fig. 2 is a top view, and Fig. 3 is an under-side view of the same.

A represents the bush, and B the bung, which is, in use, screwed into said bush. Said bush A is screwed into the bung-hole of the cask, as shown in Fig. 1, C representing in said figure the stave in which the bung-hole is formed, said bush A having an outer screw-thread, *d*, for screwing the same into the said bung-hole, and an inner screw-thread, *e*, for the reception of the screw-thread formed on the outside of the bung B. Said bung is, moreover, provided with holes *f f*, Figs. 1 and 2, or with other devices for the application of a key or wrench, by which said bung is screwed out of or into the bush A. Said bung has also formed upon its upper part a flange, *g*, Fig. 1, which, when said bung is screwed into said bush, compresses an annular packing, *h*, of rubber or other soft material placed between said flange *g*, and a shoulder, *i*, formed on the inner upper part of said bush. Said bush has upon its upper part a projection or projections, *k*, preferably annular in form, which protects the bung and the venting device, hereinafter described, when the cask is rolled about or handled in transporting the same.

The venting device is placed in the central part of the bung, said bung being perforated to receive said venting device, which consists in a screw, L, Figs. 1 and 2, having formed in its threaded part a cavity, *m*, Fig. 1, at the lower end of which cavity is formed a valve-seat, *n*, to which a valve, *o*, Figs. 1 and 3, is fitted. Said valve opens inwardly when venting the cask, and is provided with a stem, *p*, Figs. 1 and 3, extending both above and below said valve, as shown in Fig. 1. At the lower end said valve-stem *p* is flattened, the flattened part thereof playing in a slot, *r*, Figs. 1 and 3, formed in a cross-piece, *s*, Figs. 1 and 3. The upper part of said valve-stem is provided with a cruciform guide, *t*, Fig. 1, which, sliding upon the sides of the cavity *m* in the hollow screw L, assists in guiding the valve *o* properly to its valve-seat *n*. Between the cross-piece *s* and the valve *o* is placed a spring, *v*, Fig. 1, which normally holds said valve *o* up against its seat *n* with a gentle pressure. At the upper part of the cavity *m* in the hollow screw L is formed a hole, *w*, Fig. 1, through the screw, said hole communicating with said cavity.

The operation of the venting device, constructed as described, is as follows: During transportation, or when it is desired to retain the contents of the cask undisturbed therein, the hollow screw L is firmly screwed down into the bung B, to close exteriorly the central perforation. When it is desired to draw out the contents of the cask therefrom, the hollow screw is screwed out enough to allow air to pass under the head of the screw, and through the hole *w* into the cavity *m* in the said screw, when a very slight decrease of pressure in the cask below that of the exterior atmosphere causes the superior exterior pressure to open the valve *o* and admit air to the interior.

In inserting the bush A, previous to putting

in the bung B, the stave C, in which the bung-hole is made, is either faced off or recessed to permit the outer edge of the flange *x*, formed on said bush, to rest uniformly on said stave, and said flange *x* has formed on its under side an annular recess, *y*, Figs. 1 and 3, for the reception and retention of any suitable packing material.

I claim—

1. The combination, with the centrally-perforated screw-threaded bung B, of the hollow screw L, having the transverse hole *w*, the valve *n*, provided with a valve-stem, *p*, and guides *r* and *t*, and the spring *v*, substantially as and for the purpose specified.

2. The exteriorly and interiorly screw-threaded bush A, having a projection or projections, *k*, the flange *x*, and the recess *y*, formed on the under side of said flange, in combination with the exteriorly screw-threaded bung B, substantially as and for the purpose specified.

In testimony whereof I hereunto sign my name in the presence of two subscribing witnesses.

FRANZ X. WAGNER.

Witnesses:
HENRY T. BROWN,
MICHAEL RYAN.