F. PENTLARGE.
Vent-Bung.

No. 215,288. Patented May 13, 1879.

Fig. 1.

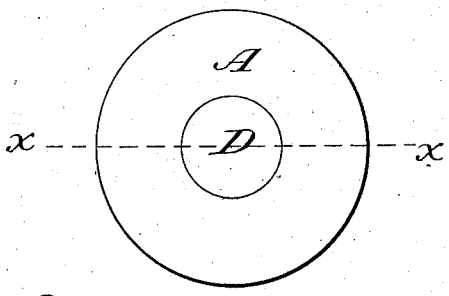


Fig. 2.

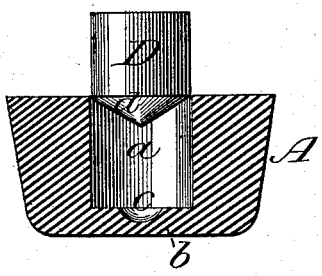


Fig. 3.

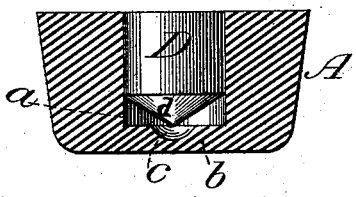
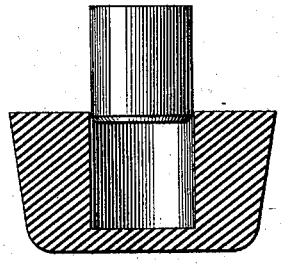


Fig. 4.



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FREDERICK PENTLARGE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN VENT-BUNGS.

Specification forming part of Letters Patent No. **215,288**, dated May 13, 1879; application filed January 21, 1879.

To all whom it may concern:

Be it known that I, FREDERICK PENTLARGE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Vent-Bungs for Casks or other Vessels, which improvement is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to effect an improvement upon that class of bungs which are provided with a hole bored from one face nearly through to the other face, and in which hole it is customary to insert for the support of the bung a plug, forming a core therein, the said plug at the same time affording a means for bursting through or sprawling off the unbored end or face of the bung by the driving of said plug into the bung by blows upon an imposed vent-plug, which vent-plug thus acts as a punch for driving the bung-plug through the bung in the act of venting the cask.

The improvement constituting this invention consists in providing the inner end of the plug or core of the bung with a sharp or taper point, and also in providing the solid portion of the bung left within and opposite said bore with a tapering depression or counterbore, whereby the said solid portion is rendered thinner in a small central spot for the reception of the impact of the taper point of the plug or core, when the same is driven through the bung in the act of venting the cask; but this counterbore is not absolutely essential to the invention, and may be dispensed with, if desired, without destroying the merits of the invention.

In the accompanying drawings, Figure 1 is a view in plan of the bung A and the plug or core D. Fig. 2 is a diametrical vertical section of the bung A, showing the end of the plug D inserted within the bore *a*, and formed with the taper or point *d*. The solid portion, *b*, of the bung is also shown counterbored or centrally recessed at *c*, somewhat in counterpart of the plug's point *d*. Fig. 3 is a section similar to Fig. 2, through the bung and plug, showing the plug inserted in the bung in position for the driving of the bung into a cask.

Fig. 4 is a diametrical vertical section, showing the ordinary vent-bung and its plug or cylinder core, upon which the invention herein claimed is an improvement.

The advantages of the improved vent-bung herein claimed can only be properly set forth by a descriptive comparison of it with the vent-bung illustrated in Fig. 4. The said advantages will now be set forth as follows:

In the act of venting a beer-cask provided with a vent-bung similar to that illustrated in Fig. 4, the plug is driven through the bung into the cask, and in being thus driven the said plug drives before it into the cask the whole or nearly the whole of the lower part of the bung, bursting or sprawling it off near the line of the end of the bore at an angle with its axis in a very irregular break from its adhering fibers. This roughly-broken part thus falling within the cask, having been severely compressed in the act of driving the bung into the bung-hole, now swells from its uncompressed or free immersion in the liquid contents of the cask, and before said piece can be removed through the bung-hole, previous to refilling the cask, it must be cut into smaller pieces. This act of cutting it into pieces not only consumes much valuable time, but requires the use of a sharp cutting-instrument, which, being inserted in the bung-hole, not only cuts the broken part of the bung in pieces, but seriously injures the interior of the cask and its lining material at the same time, and thus necessitates the repitching of the whole interior of the cask in order to repair its lining, as the beer must not be allowed contact with the wood of the cask.

In the act of venting a beer-cask provided with the improved vent-bung constituting the invention herein claimed, and illustrated in Figs. 1, 2, and 3, the plug or core D is driven through the bung A, the tapered end *d* of said plug breaking through the solid portion *b* of said bung by diametrically splitting the fibers of the bung at or near its center, or in the counterbore or cavity *c*, thus causing but a comparatively small portion of the bung to be detached, and any portion of said bung that may be detached by the plug D will fall into the cask in a divided state, or in smaller pieces than if the whole end or unbored portion of the bung were ruptured and torn off bodily at or nearly at right angles to the bore, and pre-

cipitated into the cask, as is usually the case, as aforesaid, when the ordinary cylindrical plug illustrated in Fig. 4 is used. By the use, therefore, of the improved taper plug constituting this invention only small and comparatively cleanly-cut pieces of the bung can be driven into the cask in the act of venting the same, which pieces will be readily floated out of the bung-hole in the act of washing the cask without the use of any cutting-instrument or the loss of any more time than that necessary for said washing.

The desirability of expeditiously and readily cleansing beer-casks, and the necessity of thoroughly removing all chips or foreign matter from the same, in order to preserve the quality of the beer unimpaired, is well known to those skilled in the art of brewing, barreling, and preserving beer, and serving the same unimpaired from the cask.

In the construction of this bung it is evident that it is not important in what manner either the plug D is tapered or the depression *c* formed in the solid portion of the bung A, so long as the desired result herein described is attained. It is also evident that by the use of the counterbore *c* the remainder of the solid portion *b* may be made thicker than if the said counterbore or central depression be dispensed with, thus strengthening the bung without otherwise impairing its efficiency; but, as set forth above, the counterbore *c*, not being vital to the invention, may be dispensed with without departing from the principle underlying this invention, and without depriving it of the practical salient means for carrying out said principle.

Having thus fully described my said improvement in vent-bungs, and explained the operation of the same as of my invention, I claim—

In combination with a vent-bung, A, bored partially through, leaving opposite the bore a solid portion having either a plane surface or a central depression or counterbore, *c*, as described, a central plug or core, D, having a sharp or taper point, *d*, substantially as and for the purpose set forth.

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Witnesses:

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