(No Model.)

M. G. GILLETTE.

BUNG.

No. 354,859. Patented Dec. 21, 1886.

Fig. 3.

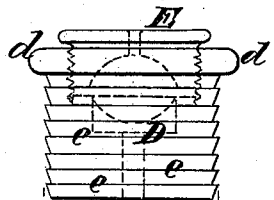


Fig. 4.

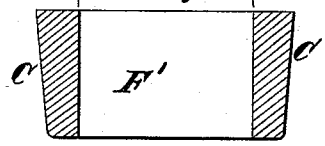


Fig. 1.

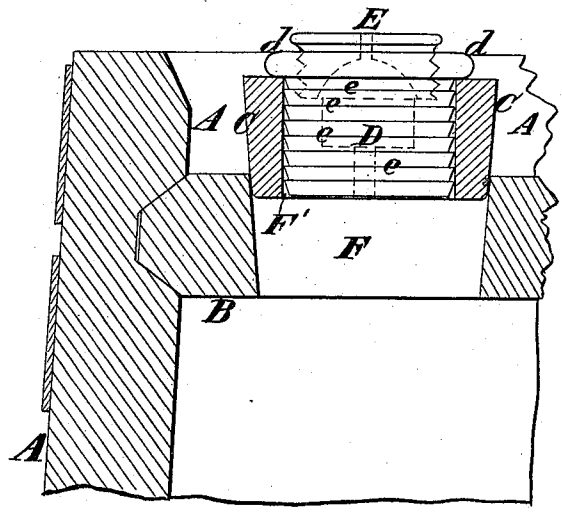
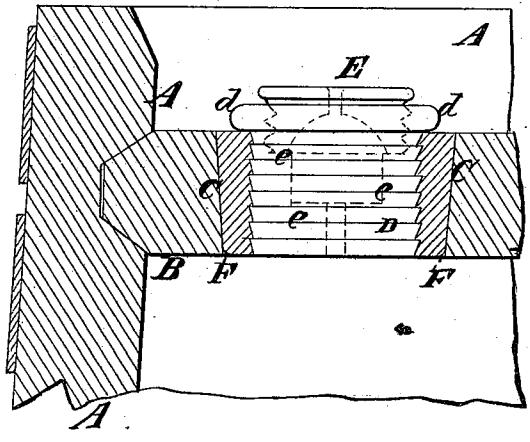


Fig. 2.



WITNESSES
John Becker
Geo. E. Gavin

INVENTOR
Mott G. Gillette
by Chas. M. Higgins
Attorney

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

MOTT GEORGE GILLETTE, OF NEW YORK, N. Y.

BUNG.

SPECIFICATION forming part of Letters Patent No. 354,859, dated December 21, 1886.

Application filed April 28, 1886. Serial No. 200,417. (No model.)

To all whom it may concern:

Be it known that I, MOTT GEORGE GILLETTE, a citizen of the United States, residing in the city, county, and State of New York, have invented an Improvement in Vent-Bungs and Tap-Hole Bungs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to vent-bungs and tap-hole bungs more commonly employed for beer and ale casks, but which may be used for any other purpose to which they are applicable.

The invention consists in a new bung, which is driven into the tapered hole formed in a head or stave of a cask, barrel, or keg, for venting the same, or which may be inserted in the side of any other receptacle in which it is necessary to use a vent, or, in the case of the tap-hole bung, may be used to stop the hole in a cask from which the faucet has been withdrawn for excluding the air and preventing the germs of mold from entering the cask and penetrating the wood thereof.

I shall describe the invention as though wood were the only material employed for the softer and more yielding part of a vent-bung or tap-hole bung, with the reservation that if any other material be employed the description hereinafter applies to that material as well as to wood.

Figure 1 of the drawings is a partly-sectional view of a portion of a cask with a vent-bung comprising my improvement inserted partly into its head, as hereinafter described. Fig. 2 is a similar sectional view with the vent-bung completely inserted. Fig. 3 is a side elevation of the metallic part of said vent-bung; and Fig. 4 is a middle vertical section through the wooden part of said vent-bung.

As the nature of the invention is precisely the same when applied to the tap-hole bung as when applied to the vent-bung, I have not deemed it necessary to show a tap-hole bung in the drawings, or to describe it separately in the specification in detail. The outer construction of the tap-hole bung is precisely the same as that of the vent-bung, and as my invention relates only to said outer construction it will be sufficient to describe it with reference only to the vent-bung.

A represents the chine of a cask, keg, or barrel, and B the head of the same, in which is formed a tapered bung-hole, F, for the insertion of the vent-bung.

C represents the wooden part of said vent-bung, which has a cylindrical hole, F′, formed concentrically therein, without taper, and of sufficient size to allow the part D of the metallic portion of the bung to drop freely into said hole.

The outer perimeter of the wooden part C of the bung is tapered to correspond to the taper of the bung-hole F. The metallic part of the vent-bung is shown at D, *d*, and E, D representing the body of said metallic portion, which is hollow to inclose the check-valve, and which has vent-holes formed vertically through the same, as shown in dotted outline in Fig. 3. When the metallic part of the vent-bung is inserted in the wooden part C of the same, as shown in Fig. 1, the flange *d* of said metallic part is brought down flush upon the top of said wooden part and abuts firmly against the same, as shown in Figs. 1 and 2.

E is simply a screw-plug, which is screwed into the top of the metallic part of the bung, for the purpose of inclosing the check-valve. The body D of the metallic part of the vent-bung is formed with a series of parallel threads, *e*, upon its outer surface, extending entirely around said body, which, having the shape of saw-teeth in their cross-section, as shown in all the figures, I will hereinafter call "serrated threads."

Screw-threads may be used instead of parallel threads, as shown, but with the disadvantage that the metallic part of the bung can be screwed out of the wooden part, which might occur in attempting to remove the plug E to reach the vent-valve. I therefore, while not limiting myself to parallel threads, prefer to use them for the purpose specified. These serrated threads are preferably formed in such manner that the inclined sides of the threads are directed toward the inner part of the wooden portion C of the vent-bung when the metallic part of the bung is inserted in said wooden portion. The engagement of the body D of the metallic part of the vent-bung with the yielding bushing is made permanent by driving in simultaneously the metallic part and the wooden part into the hole F. This is done by using a hollow cylindrical mandrel or set, which

is placed in such manner as to bear upon the upper part of the flange *d*, but not to press upon the plug E.

Blows upon the outer end of said mandrel or set with the mallet or other driving instrument will force both the metallic and the wooden part of the bung into the bung-hole F, and the wedging action of the tapered surface of the wooden part C upon the perimeter of the tapered hole F presses the wooden part centrally toward the body D of the metallic part, and forces the serrated threads *e* into the material of the wood, thereby effecting the permanent attachment of the body and wooden bushing. In this way the upper part, *d* and *e*, of the metallic portion of the bung may be made of such dimensions as to fall wholly within the margin of the chine A of the cask, barrel, or keg, and may there remain permanently attached out of the way of injury.

It will be seen that the vent-bung inserted in this way in nowise interferes with the ordinary process of washing kegs or casks, and also that the insertion of the vent-bung may be made in very much less time than would be required to screw a metallic vent-bung into the wood itself. These vent-bungs are inserted at the brewery, and the beer barrels and kegs therefore go to the consumer already vented, thereby saving them the trouble of inserting vents; also, it obviates the necessity of applying a new vent-bung every time the package is filled, thereby effecting a great saving in the expense of such bungs.

Beer kegs or casks now in use have two iron bushings, a bung and tap-hole bush, respectively. The adoption of this vent or tap-valve bung requires no change or alteration in the present construction of the packages, the wood bush C taking the place of the present iron bush.

Having thus described my improvement, what I claim as new, and desire to secure by Letters Patent, is—

A vent or tap-hole bung constructed of a metallic portion inserted into the softer portion constituting the bush of said metallic portion, the metallic portion being formed with threads *e* upon its body, and the flange *d*, for the engagement of the softer bush portion when the whole is driven into the bung-hole of a cask, substantially as and for the purposes herein specified.

MOTT GEO. GILLETTE.

Witnesses:
LEICESTER ALLEN,
JNO. E. GAVIN.