K. C. GILLETTE.

Tap Bushing and Valve Combined.

No. 226,059 Patented Mar. 30, 1880.

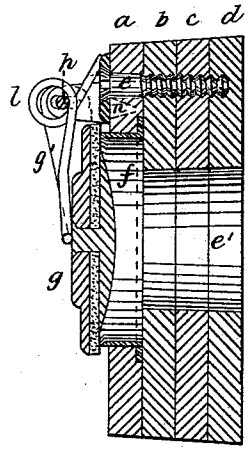
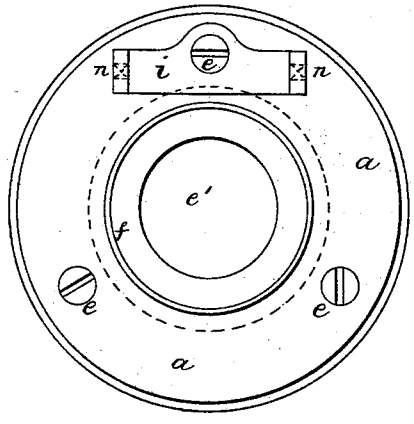


Fig. 1.

Fig. 2.



Witnesses.

A. D. Williams

John D. Sherlock

King C. Gillette

per Inventor

Alfred Sherlock atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

KING C. GILLETTE, OF NEW YORK, N. Y.

TAP BUSHING AND VALVE COMBINED.

SPECIFICATION forming part of Letters Patent No. 226,059, dated March 30, 1880.

Application filed October 18, 1879.

To all whom it may concern:

Be it known that I, KING C. GILLETTE, of New York, county and State of New York, have invented a certain new and Improved Tap Bushing and Valve Combined, of which the following is a specification.

This invention consists in combining a tap-valve with a tap-bushing made of several layers of wood with the grain running in different directions in such a simple and effective manner that the cost of making the same is greatly reduced and the liability to leakage reduced to a minimum.

The frame to which the flap-valve is pivoted is a small plate provided with two ears or lugs on its upper surface and two sharp projections on its under surface at its ends, which fit into holes in the inner face of the bung, and assist to hold the frame in place, it being securely fastened to the bushing by one of the screws which hold the various layers of wood together.

The valve is composed of a thimble of thin metal fitted into a hole made in the inside layer of wood, somewhat larger than the tap-hole in the other part of the bushing. The object of making the bush larger than the tap-hole is to prevent the tap coming in contact with the bush when it is inserted in the tap-hole, and so marring or disturbing the bush, which projects beyond the exposed side of the inside layer of wood to allow the flap to close fairly against its outer edge, and its inner edge is provided with a flange, which fits into a countersunk recess made therefor in the inner layer of wood, so that it is firmly held in place when the different layers of wood are secured together, which I generally do by applying glue to them before the holding-screws are screwed through them.

In the accompanying drawings, forming part of this specification, Figure 1 is a central sectional view of my combined tap-valve and tap-bushing, and Fig. 2 is a face view of the inner side of it with the flap of the tap-valve removed.

The tap-bushing is composed of the pieces of wood *a b c d*, which are glued and held together by the screws *e e e*. It is turned true on the outside to fit a hole made in the head of the cask or barrel to which it is to be applied, and is also provided with the central hole, *e'*, for the admission of the tap. This central hole, *e'*, is closed on the side which is inside the barrel or cask by means of a flap-valve, which I will now describe. The inside piece of wood, *a*, is provided with a central hole larger in diameter than the hole made through the balance of the tap-bushing *b c d*, and it has a countersunk recess on the side next to the piece of wood *b*. In the central hole in the piece *a* is fitted the thin metal sleeve or bush *f*, which is provided with a flange at one end adapted to fit into the countersunk recess, and the other end of the sleeve or bush *f* projects somewhat beyond the exposed face of the piece of wood *a*, and is made with a sharp edge, so as to make a tight joint with the flap of the valve. The part *a*, with the sleeve *f* fitted therein, to which may be applied some white lead to insure a perfect joint between them, is connected to the part *b* by glue, or may be held thereto simply by the screws *e e*. After the other parts, *b c d*, have been glued together, the whole is then turned, as before described.

The flap *g* of the valve is connected to the part *a* of the bushing by means of the pin *h* passing through the projecting pieces *g' g'*, and through ears standing up from the small plate *i*, which is securely held to the bushing by one of the screws *e* passing through it, and is prevented from turning by being provided with two spurs, *n n*, which enter the wood *a*, as shown in dotted lines.

The flap *g* is so placed as to be concentric with the sleeve or bush *f*, which forms the seat of the valve, and is pressed thereto by the spiral spring *l*, surrounding the pin *h*, and bent so as to bear against the center of the back of the flap.

It is obvious that other forms of valves than that described and shown may be used in conjunction with the valve-seat *f*, combined with the tap-bushing *a b c d*—as, for instance, a flat circular stem-valve adapted to be pushed away from the seat *f* by the end of the tap.

It will be observed that by reason of this arrangement I am enabled to save considerable metal in the construction of the valve, besides doing away with the necessity of using any screws to secure it in place, as it is so held

by one of the screws employed to strengthen the bushing and assist to hold the parts *a b c d* together.

The flap *g* is pushed away from the valve-face or bush *f* by the end of the tap when inserted through the tap-hole *e'*; but the tap does not touch the valve-face or bush *f* to move or disturb it, it being made larger than the hole *e'* principally for this purpose.

I may mention that another of the advantages of this construction of tap-valves is, that the same may be applied to barrels already made without necessitating the removal of the head for this purpose, it being only necessary to bore a hole of the size of the bushing *a b c d*, which is held in place and made tight by means of glue or white lead, and by putting in two or three screws half-way in the joint, if thought desirable; and the tap-hole, on account of the cross-grain of the various pieces of wood, is much more durable than when made through the cask or barrel head itself.

The tap-bush made of several layers of wood is the subject of another application of mine for Letters Patent now pending. I wish it understood that I do not here claim anything relating to its construction and application, nor to the construction of the flap and spring of the valve; but

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the tap-bushing *a b c d*, the valve-seat or tap-valve formed by the bush *f*, substantially as and for the purpose hereinbefore set forth.

2. The flap *g*, in combination with the plate *i*, provided with the spurs *n n*, and secured to the tap-bushing *a b c d* by one of its strengthening-screws, substantially as and for the purpose hereinbefore set forth.

3. In a tap-valve and tap-bushing combined, the flap *g*, plate *i*, sleeve or bush *f*, and bushing *a b c d*, all constructed and arranged substantially as hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 16th day of October, 1879.

KING C. GILLETTE.

Witnesses:
CHAS. G. SINGER,
H. D. WILLIAMS.