

M. G. GILLETTE.
Tap-Valve for Barrels.

No. 220,602.

Patented Oct. 14, 1879.

Fig. 1.

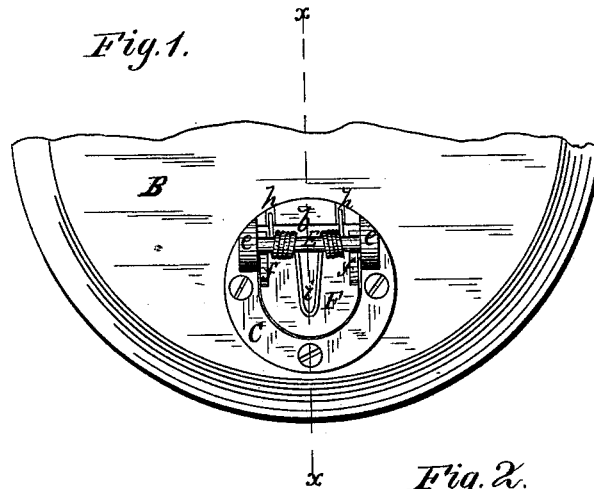


Fig. 2.

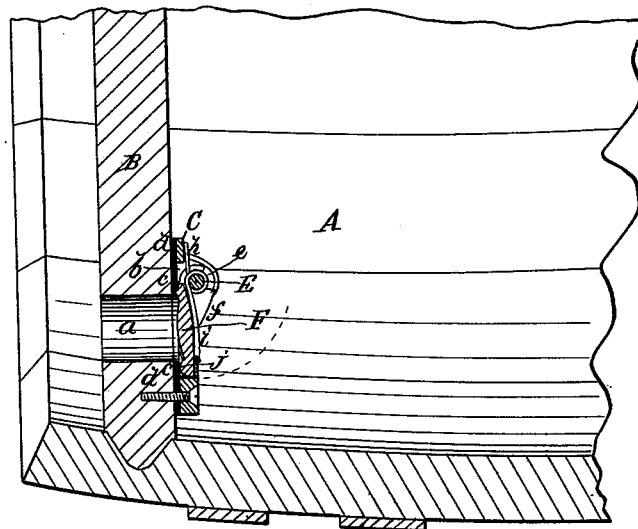
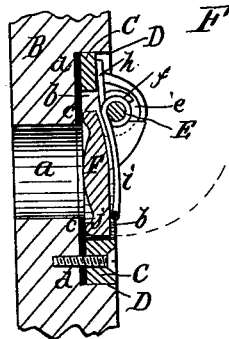


Fig. 3.



WITNESSES:

Henry W. Miller
L. B. Sedgwick

INVENTOR:

M. G. Gillette

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MOTT G. GILLETTE, OF NEW YORK, ASSIGNOR TO ISAAC G. JOHNSON AND ELIAS M. JOHNSON, OF SPUYTEN DUYVIL, N. Y.

IMPROVEMENT IN TAP-VALVES FOR BARRELS.

Specification forming part of Letters Patent No. **220,602**, dated October 14, 1879; application filed February 25, 1879.

To all whom it may concern:

Be it known that I, MOTT G. GILLETTE, of the city, county, and State of New York, have invented a new and Improved Tap-Valve for Barrels, of which the following is a specification.

The object of my invention is to supply a valve for closing the tap-hole of ale and beer barrels, casks, &c., which will effectually close up the tap-hole and prevent the entrance of air, but at the same time does not interfere with the insertion of the faucet.

It consists of an annular collar placed around the tap-hole on the inside, which forms a seat for a flap-valve (opening inwardly) hinged thereto and governed by a spring.

In the accompanying drawings, Figure 1 is a view of the inside of a cask-head with my improved valve in position over the tap-hole. Fig. 2 is a section of the same on line *x x*, and Fig. 3 is a modification of the manner of attaching the valve and seat to the head.

Similar letters of reference indicate corresponding parts.

Ale and beer casks, barrels, &c., when empty and allowed to remain so any length of time with the tap-hole open, so as to admit the air, become sour and frequently moldy, with the result of making the same unfit for use without cleaning, and very often they are ruined entirely.

My invention is designed to prevent the occurrence of such a condition.

Referring to the drawings, A represents the segment of a cask, barrel, or other such article for the reception of ale, beer, and other fermented liquors. B is a part of the head thereof, and *a* is the tap-hole therein.

My improved tap-hole protector consists of the annular collar C, placed on the inside of the head around the tap-hole. Through this is made an oblong opening, *b*, with chambered edges, rectangular at one end and semi-cylindrical at the other, which is slightly larger in its smallest dimensions than the tap-hole, so as to leave a seat, *c*, between its inside edge on the head and the tap-hole.

The collar C is attached to the head, either on the surface thereof, as in Figs. 1 and 2, or

in a circular rabbet, D, made in the head about the tap-hole, as in Fig. 3, and between the collar and the head is placed a sheet of packing, (rubber or leather,) *d*, with a hole through it of the size of and in line with the tap-hole. On either side of the opening *b*, near the square end, are ears *e e*, in which are secured the ends of the rod E, parallel to the square end of the opening.

F represents the flap-valve, of the same general form as the opening *b*, but not quite so long as it is. This valve fits in the opening *b*, with its rounded end and its sides against the corresponding parts of the opening, as shown in the drawing.

On the outer side of the valve, near the square end, are slotted lugs *f f* on each side, the slots thereon receiving the rod E, and thus holding the valve in place, and furnishing a hinge by which the valve can be opened and closed without losing its connection with the collar.

A strong spiral spring, F', is wrapped around rod E, two free ends, *h h*, whereof rest in slots in the collar back of the rod E, while the doubled end *i* extends forward and bears upon the back of the valve F. This spring keeps the valve closed tightly when not pressed outward and open by the insertion of the faucet.

On the bearing-face of the valve a bead, *j*, is turned on its face near the edge which bears upon the packing, and thus makes a tighter connection therewith.

The valve, as will be observed in the drawings, is retained in its seat by the pressure of the spring F' and the bead *j*, and the face or under side of the valve, bearing upon the packing *d*, forms an air-tight joint that excludes the air from the interior of the barrel or cask, and thus prevents it from becoming sour or moldy, and also prevents the entrance of dirt, dust, &c., thus keeping the interior in good condition for continued use.

When, however, the barrel is to be tapped, the faucet, being inserted in the tap-hole, is driven against the valve and pushes it back. It opens inward and gives admission to the faucet without trouble. So soon, however, as

the faucet is withdrawn, the spring forces it down on its seat again, and thus seals up the tap-hole.

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

The combination and arrangement of the tap-valve to close the tap-hole, composed of the collar C, with opening *b*, the flap-valve F,

hinged to the collar so as to close in the opening *b* in said collar on seat *c*, between the inner edge of the opening and the tap-hole, the packing *d*, and the spring *F'*, for controlling the valve, substantially as described.

MOTT G. GILLETTE.

Witnesses:

WILTON C. DONN,
C. SEDGWICK.