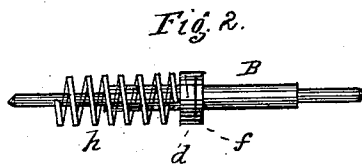
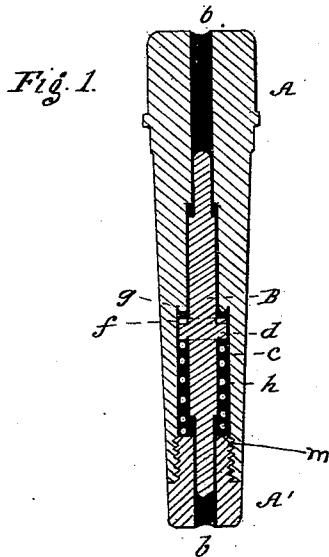


A. BOTTGER.  
Vent for Barrel.

No. 228,440.

Patented June 8, 1880.



Witnesses:  
*W. H. King*  
*John J. Dixon*

Inventor:  
*Augustus Bottger*  
By his Atty.  
*John S. Thornton*

# UNITED STATES PATENT OFFICE.

AUGUSTUS BOTTGER, OF NEW YORK, N. Y.

## VENT FOR BARRELS.

SPECIFICATION forming part of Letters Patent No. 228,440, dated June 8, 1880.

Application filed February 27, 1880.

*To all whom it may concern:*

Be it known that I, AUGUSTUS BOTTGER, a citizen of the United States, residing at the city of New York, in the county and State of New York, have invented an Improved Vent for Barrels and Similar Vessels; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

This invention relates to an improvement in the construction of vents for beer-barrels and other vessels containing liquids that are liable to be injured by contact with atmospheric air, portions of which are withdrawn from the barrel or vessel at intervals.

The object of the invention is to construct the vent in such a manner that it shall be simple, inexpensive, and durable, and not liable to get out of working order, and so that while it will allow the admission of a sufficient quantity of air to take the place of the portion of liquid withdrawn, as soon as that quantity has been admitted, the outer air will be effectually prevented from entering until such time as another portion of the liquid is withdrawn.

My improved vent consists in a metallic body of suitable form, having an opening throughout its entire length, in which is fitted a piston (hereinafter particularly described) that works loosely in the interior thereof, and which forms a valve that is opened by the pressure of the atmosphere and is closed by a spring, the parts being so arranged that while the liquid is being withdrawn the valve will be opened by the pressure of the atmosphere, so as to permit a sufficient quantity of air to take the place of the liquid withdrawn, and when that has been done it will be closed by the action of the spring, all of which is hereinafter particularly set forth and described.

In the accompanying drawings, Figure 1 is a vertical section of the vent, taken through its center; and Fig. 2, a detached view of the piston and spring.

Similar letters of reference indicate the same parts in all the figures.

A A' is the body of the vent, which may

be made slightly tapering, as shown in the drawings, for convenience in inserting it into the barrel or vessel F, into which it is driven. *b* is a passage or opening extending throughout the entire length of the body of the vent. A central portion of this opening is made of larger diameter, so as to form a chamber or cylinder, *c*, in which works a piston, B. This piston B has a flange, *d*, formed upon it, on the upper surface whereof is fitted an elastic pad or washer, *f*, which, when the piston is pushed upward, comes in contact with a ring, *g*, formed on the body of the vent, around the opening, and thereby operates as a valve to prevent the admission of air. This upward movement of the piston is effected by the action of a spiral spring, *h*, inserted below the flange *d*.

Each part of the piston fits loosely within the opening and chamber, leaving a small annular space, through which the air passes into the barrel when the valve is open.

The lower portion, A', of the body is made detachable by means of the screw-threads *m*, for the purpose of allowing access to the interior.

I purpose to make all the parts, with the exception of the elastic pad or washer, of brass, so that it shall be practically indestructible.

The operation is as follows: The smaller end of the vent having been driven through the bung or other part of the barrel or vessel, whenever a portion of the liquid therein is drawn off the outer air rushes into the opening and forces open the valve, and thence passes into the barrel or vessel to fill up the vacuum occasioned by drawing off the liquid, which being done, the spring *h* (acting against this pressure) forces the valve to its seat and prevents the further admission of air, and thus the vent continues to operate automatically until the whole of the liquid has been drawn off.

What I claim as my invention is—

In a vent for barrels, the body A A', constructed as described, and provided with an aperture, *b*, through its entire length, and with a chamber, *c*, at the upper part of which is a valve-seat, *g*, in combination with the pis-

ton B, having a flange, *d*, formed thereon, and provided with an elastic pad, *f*, on the upper surface of the said flange, and the spring *h*, located in said chamber, to resist the atmospheric pressure, the said piston and its flange being fitted loosely in the said aperture and chamber, so as to leave an annular space all

around it, as herein shown and specified, for the purpose set forth.

AUGUSTUS BOTTGER.

Witnesses:

WM. H. KING,  
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