

# VENT PLUG FOR BEER CASKS.

CH<sup>S</sup>. H. MILLER & W<sup>M</sup>. ASCOUGH,

Buffalo, N.Y. PATENTED FEB 7 1871

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Assignors to W. Ascough.

Fig. I

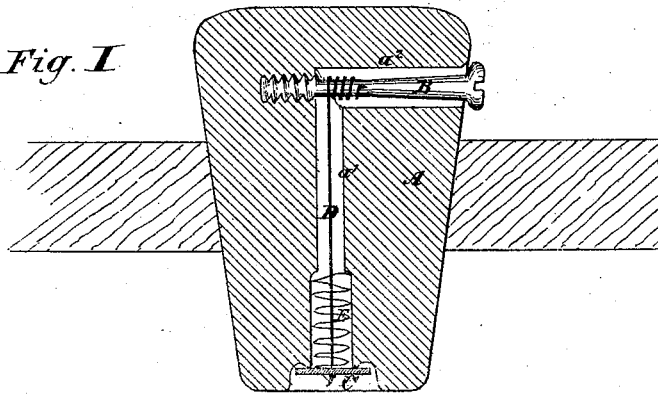
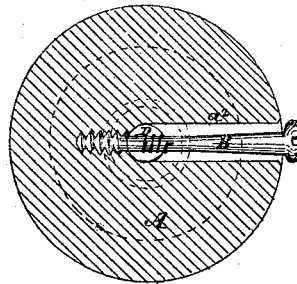


Fig. II



INVENTORS.

Charles H. Miller  
Wm. Ascough

WITNESSES:

Mauden Davey  
B. H. Muehle

# United States Patent Office.

CHARLES H. MILLER AND WILLIAM ASCOUGH, OF BUFFALO, NEW YORK.

Letters Patent No. 111,664, dated February 7, 1871.

## IMPROVEMENT IN VENT-PLUGS.

The Schedule referred to in these Letters Patent and making part of the same.

We, CHARLES H. MILLER and WILLIAM ASCOUGH, of the city of Buffalo, county of Erie and State of New York, have invented a certain new and improved Vent-Plug for Beer-Casks, of which the following is a specification.

The first part of our invention consists of a screw-spindle, around which an elastic cord is wound, which cord is attached to a valve upon the lower end of the bore of the plug, and serves to force said valve to its seat.

The second part of our invention consists in the combination, with the above, of a spiral spring interposed between the valve and a bearing formed in the bore of the plug, for the purpose of forcing the valve open as soon as the strain of the elastic cord, by turning the screw-spindle, is relaxed.

In the accompanying drawing—

Figure I is a vertical section of our improved vent-plug.

Figure II is a horizontal section of same.

Letters of like name and kind refer to like parts in each of the figures.

A represents a vent-plug, which may be of ordinary shape and size, and is provided with a vertical bore, *a'*, and a horizontal passage, *a*, opening outwardly.

B is a screw-spindle, which fits loosely in the horizontal passage, its head projecting upon the outside of the plug. It is screwed upon the inside, into the solid portion of the plug, opposite the passage *a*.

C is a valve which covers up the lower end of the bore *a'*, and is suspended upon an elastic cord, D.

The other end of this cord is fastened to and wound around the screw-spindle in such manner that when the screw is turned in one direction the valve is forced to its seat and hence the vent closed, and when the screw is turned in the opposite direction the valve is released and opened to admit air into the cask through the passage *a* and bore *a'*.

E represents a spiral spring, which is interposed between the valve C and a shoulder or bearing formed within the bore *a'*. The object of this spring is to open the valve as soon as the strain of the elastic cord is diminished and it becomes loose, by the turning of the screw-spindle B.

The operation of our improved vent-plug is simple and calculated to meet all the requirements of those using the article.

The vent may be applied by the brewer to the barrels or kegs which he sells to the retailer in the place of the common plug which is now used, and when removed by the retailer seldom returned to the brewer.

Our improved vent-plug presents the same outward appearance as the common plug, with the exception

of the head of the screw-spindle, and may remain a fixture with the keg while its contents are drawn by the retailer, saving the latter the trouble of removing the common plug and the expense of a vent.

As a vent for admitting air into the keg or barrel while its contents are drawn therefrom, our improvement is simple of construction and perfect in its operation.

As soon as air may be required inside of the keg to allow the contents to flow more freely from the faucet, the screw-spindle is turned to the left by taking hold of its head projecting upon the outside of the plug. The elastic cord being thus unwound from the spindle, its strain upon the valve will be relaxed, and the suction created by the drawing off of the contents of the keg will overcome the tension of the cord yet remaining, and the valve will open sufficiently to supply the demand of air upon the inside of the keg.

When the keg is nearly empty the expansive quality of the beer which presses from the inside against the valve is gradually diminished, and it will become necessary to increase and regulate the pressure of the valve against its seat by turning the screw-spindle to the right, thus winding the cord upon the spindle.

When our improved vent-plug is used by brewers in the place of the common plug, the spindle should be screwed into its bearing tightly, so as not only to cover the mouth of the passage *a* with the head of the screw, but also to wind up the cord on the spindle and increase the tension of the cord upon the valve, thereby providing a double safeguard against beer escaping from or air entering the keg while the same is carried or transported from place to place, rolled over, or carelessly handled.

The spring E serves to facilitate the opening of the valve by suction in case the valve should become sticky or otherwise obstructed, but the tension of the elastic cord should always be so great as to overcome the action of the spring.

We claim as our invention—

1. The screw-spindle B, the valve C, and the elastic cord D connecting the same, in combination with the plug A, said parts being constructed, arranged, and operating substantially as herein described.

2. In combination with the above, the spiral spring E, for the purpose and substantially as herein set forth.

Signed at Buffalo, June 20, 1870.

CHARLES H. MILLER.  
WM. ASCOUGH.

Witnesses:

MARSDEN DAVEY,  
B. H. MUEHLE.