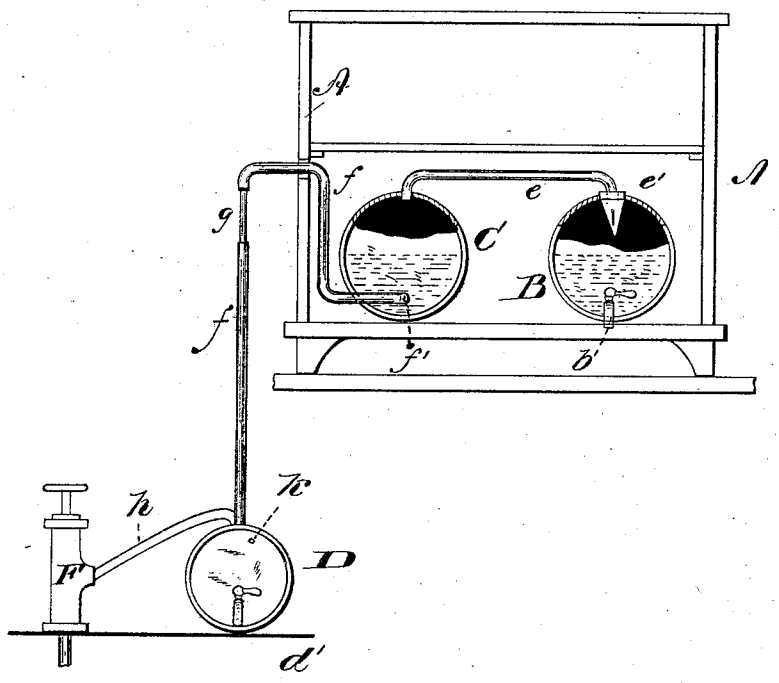
(No Model.)

P. BRADY.

PROCESS OF AND APPARATUS FOR PRESERVING AND VENTING BEER.

No. 281,963. Patented July 24, 1883.



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

UNITED STATES PATENT OFFICE.

PATRICK BRADY, OF NEWARK, NEW JERSEY.

PROCESS OF AND APPARATUS FOR PRESERVING AND VENTING BEER.

SPECIFICATION forming part of Letters Patent No. 281,963, dated July 24, 1883.

Application filed May 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, PATRICK BRADY, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in the Process of and Devices for Preserving and Venting Beer, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in the process of and apparatus for subjecting beer and other liquids to pressure when confined in a barrel or other vessels, whereby the strength and quality of the beer is preserved.

The invention consists in such arrangements and combination of parts as will be hereinafter set forth, and finally embodied in the claims.

The figure in the drawing represents a side elevation of a refrigerator, in which—

A is the body of the refrigerator.

B is a barrel partially filled with beer, the head of which is partially broken away, said barrel having a faucet, *b*.

C is a barrel partially filled with water, the head of which is also partly broken away.

D is a barrel placed outside the refrigerator A and below the level of the barrels in the refrigerator.

e is a pipe connecting the barrels B and C, having a check-valve or a beer-vent, *e'*, at the end that enters the barrel containing the beer.

f is a pipe connecting the barrel D with the barrel C, containing the water, and extends upward above the top of the barrels within the refrigerator, and, passing through the wall of the refrigerator, connects with the barrel C at any suitable place, as at *f'*. The end of the pipe *f* which enters the barrel C has a check-valve or beer-vent, like the one at *e'*, attached to said pipe within the said barrel. The pipe *f* may be cut, and a glass tube, *g*, inserted, for the purpose hereinafter described. F represents a force-pump connected with the barrel D by the pipe *h*. The barrel D is further provided with a faucet, *d'*. The operation of the apparatus is as follows: The barrel D and pipe *f* being filled with air, water is forced into said barrel and pipe by the pump F. As the water fills the barrel and pipe the air within is forced up through the pipe *f*, and through the valve at *f'*, into the barrel C, where it passes up through the water in said barrel, the impurities in the air being thereby removed. The air then passes through the pipe *e* and the valve or vent *e'*, and down upon the beer or other liquid in the barrel B, thus filling the space in said barrel above the beer with compressed air. The valves *e'* and *f'* prevent the air from returning through the pipes *e* and *f*, and the valve *f'* also prevents the water in the barrel C from entering the pipe *f*. The glass tube *g* serves to indicate the height of water in the pipe *f*, so that when the water has risen to that height it can be drawn off through the faucet *d'*. An opening, *k*, in the barrel D, provided on the inner side with a valve similar to the one at *e'*, is made to allow the air to enter the barrel and pipe while the water is being drawn off, thus assisting the outflow of the water and providing fresh air, which may be forced into the barrel B, and in this manner maintaining the pressure in said barrel as the quantity of beer decreases. Any suitable means may be employed in forcing the water, as an ordinary pump or a stand-pipe of sufficient height to secure the required pressure; or, where it is convenient, the water may be supplied from the aqueduct.

The beer may be drawn directly from the faucet *b*, or may be forced through a pipe to any desired place—as, for instance, the barrels and other apparatus can be kept in a cellar or in any cool place, and the beer forced up to a room above, the forcing apparatus being placed lower than the containing-barrels B and C, as indicated in the drawing. The barrels may be placed on their sides, as shown, or stand on their heads, and the connections made either in the sides or the heads, as may be desirable. The barrel C may be provided with a faucet to draw off the water contained therein, a fresh supply being forced from the pump when necessary.

Having thus described my invention, what I claim is—

1. An apparatus for venting and preserving beer and other liquids, consisting of a barrel or vessel (as C) partially filled with water, a pipe, *e*, provided with a valve, (as *e'*,) a barrel,

D, having a faucet, d', and means for admitting air, (as k,) a pipe, f, connecting said barrels C and D, provided with a valve at f', and means for forcing water into the barrel D and pipe f, all substantially as and for the purposes herein set forth.

2. The combination, with a barrel or vessel (as B) filled or partially filled with beer or other liquid, of a barrel or vessel (as C) partially filled with water, said barrel being connected with the barrel B by a pipe (as e) provided with a valve, e', a barrel or vessel (as D) having a faucet, (as d',) and means for admitting air, (as k,) connected with the barrel C by a pipe, (as f,) said pipe being provided with a valve at f', and means for filling the barrel D and pipe f with water, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of May, 1883.

PATRICK BRADY.

Witnesses:
CHARLES H. PELL,
F. F. CAMPBELL.