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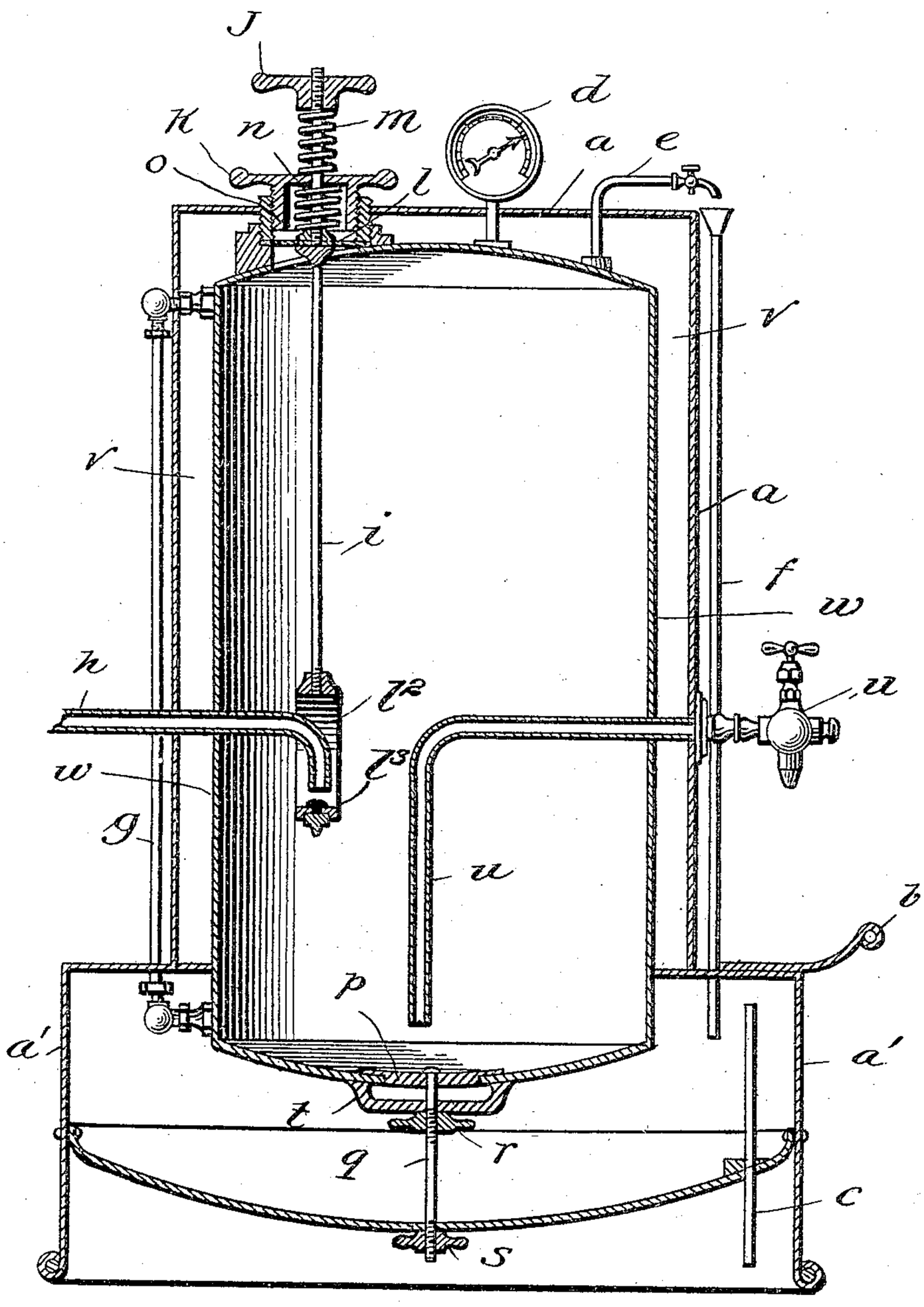
A. L. MALONE.

STEAM BEER, STEAM ALE, OR STEAM PORTER DRAWING MACHINE.

APPLICATION FILED FEB. 19, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT LUCAS MALONE, OF SAN FRANCISCO, CALIFORNIA.

STEAM-BEER, STEAM-ALE, OR STEAM-PORTER DRAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 767,302, dated August 9, 1904.

Application filed February 19, 1903. Serial No. 144,160. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LUCAS MALONE, a citizen of the United States, residing at No. 236 Utah street, San Francisco, in the county of San Francisco, State of California, have invented a new and useful Steam-Beer, Steam-Ale, or Steam-Porter Drawing Machine, of which the following is a specification.

This invention relates to apparatus for drawing steam-beer, steam-ale, or steam-porter direct from the keg or holder without loss of gas at the keg.

The object of the invention is in a ready, simple, and thoroughly-feasible manner to draw off either of the above beverages without excess of foam and without loss of gas, to effect automatic cutting off of the supply of beverage to the holder when a predetermined pressure has been reached, to vary the pressure requisite to cut off the supply of the beverage, thus to increase or decrease the internal pressure of the holder, and generally to improve apparatus of this character.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists of the novel construction and combination of parts of an apparatus for drawing steam-beer and similar beverages, as will be hereinafter fully described and claimed.

In the accompanying drawing, forming part of this specification, and in which like characters of reference indicate corresponding parts, the figure is a view in vertical longitudinal section through an apparatus constructed in accordance with the present invention.

The apparatus of the present invention embodies a jacket *a*, which surrounds a cylinder *w*, the jacket extending below the bottom of the cylinder and outwardly therefrom to form a drip-receptacle *a'* from the pipe *f*, said receptacle also serving to receive ice. A space *v* surrounds the cylinder *w* and has communication from the receptacle *a'* for the passage of air for insulating purposes. A lid or cover *b* is detachably connected to one portion of the top of the receptacle *a'*, which serves to catch the drippings from a faucet *u*, said lid also serving to permit of access being had to the receptacle *a'*. The receptacle *a'* is further provided with an overflow-pipe *c*, by which any accumulated liquid may be discharged into a bucket or other suitable receptacle.

The upper portion of the apparatus is provided with a pressure-gage *d*, which shows the amount of pressure in the cylinder *w*, a vent-valve *e* being provided in an upper portion of the cylinder to be used when the cylinder is air-bound, so as to let off air and allow steam-beer or other beverage to enter the cylinder *w*.

Arranged exteriorly of the jacket is a pipe *f*, having a funnel-shaped top to catch any liquid escaping from the vent-valve *e* and to convey it to the lower part of the jacket *a*. In order to ascertain at a glance the amount of the steam-beer or the like in the cylinder *w*, an ordinary glass gage *g* is provided on one side of the apparatus, which is connected at top and bottom with the cylinder.

Entering the side of the apparatus at any preferred point above the bottom thereof is a pipe *h*, which connects with a source of supply, the said pipe having a downturned end which is finished or surfaced to present a seat for a washer forming a part of the regulator, said seat being indicated by l^2. The regulator comprises a stem *i*, having at its lower end an annulus which carries the washer l^3, the upper end of the stem being projected through a flexible diaphragm *l*, arranged over an opening in the top of the apparatus, said diaphragm being clamped between washers suitably connected to the upper end of the stem *i*, as shown, whereby the diaphragm is securely held in position. The stem projects through a nut *k* and carries at its upper end a nut *j*, and between the under side of the nut *j* and the upper side of the nut *k* is a coiled spring *m*, and between the under side of the nut *k* and the diaphragm is arranged a coiled spring *n*. The diaphragm is held in position through the medium of a gland *o*. The adjusting-nut *k* operates the regulator through the medium of the spring *n* and is provided with a thread on the outside which engages the thread on the inside of the gland and allows such adjustment as is necessary. When the nut *k* is screwed down, it takes the tension off the spring *m* and acts upon the stem *i*, forcing

the same down and opening the pipe *h*, which allows the steam-beer or the like to enter the cylinder *w* and increasing the pressure therein. As the pressure gradually increases the diaphragm *l* is forced upward, thereby moving the stem *i* and causing the washer l^3 to close the lower end of the pipe *h* at a predetermined pressure, said pressure depending upon the tension of the spring *m*, which is determined by the adjusting-nut *k*. When the adjusting-nut is screwed up, it releases the tension on the spring *m* and increases the tension on the spring *n*, which operates on the stem *i* through the medium of the nut *j* and closes the pipe *h* regardless of the pressure in the cylinder *w*, thereby preventing the opening of the pipe, as from jars, when the apparatus is removed from the keg.

The diaphragm *l* may be made of any suitable material, such as rubber or copper.

The bottom portion of the cylinder is provided with a hand-hole plate *p*, of elliptical shape, for the purpose of permitting cleansing of the cylinder when desired. This plate is held in position through the medium of a bolt *q*, which extends through a bracket *t* and through the jacket. A nut *r* is threaded on the bolt *q* and bears against the crow-foot for the purpose of securely binding the hand-hole *p* in position. The lower end of the bolt *q* carries a nut *s*, which operates to hold the jacket in position on the cylinder. One side of the apparatus is provided with a faucet *u*, the pipe of which descends down nearly to the bottom of the cylinder.

In order to insulate the cylinder *w*, there is a surrounding air-space *v* provided between the jacket and cylinder.

Having thus described the invention, what is claimed as new is—

1. The combination with the cylinder having a vent-valve, of a jacket surrounding and inclosing the cylinder, an air-space between the jacket and cylinder, a pipe arranged exteriorly of the jacket and coacting with the vent-valve, said pipe having its lower end projecting into the jacket, a faucet on the outside of the jacket having connection with an angular pipe within the cylinder, a drip-catching device connected to the jacket and extending laterally therefrom, and a vertical overflow-pipe arranged within the bottom of the jacket, substantially as specified.

2. The combination with the cylinder, a jacket, surrounding and inclosing the same, an air-space between the cylinder and jacket, a supply-pipe leading into the cylinder and having a curved inner end, a regulating-stem having means on its lower end to coact with the opening in the curvature of the pipe, of a diaphragm at the upper end of the cylinder, and spring-actuated nuts arranged one above the other and above the diaphragm, the upper end of the stem mounted in both of said nuts and adapted to be operated simultaneously by the same, substantially as specified.

3. The combination with the cylinder and jacket an elliptical hand-hole plate mounted in the bottom of the cylinder, a bracket or hanger, a bolt passing through said plate and bracket and through the bottom of the jacket, a nut on the bolt coacting with the bracket to secure the hand-hole in position, and a nut also on said bolt which serves to coact with the bottom of the jacket to hold the cylinder in position within said jacket, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT LUCAS MALONE.

Witnesses:
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