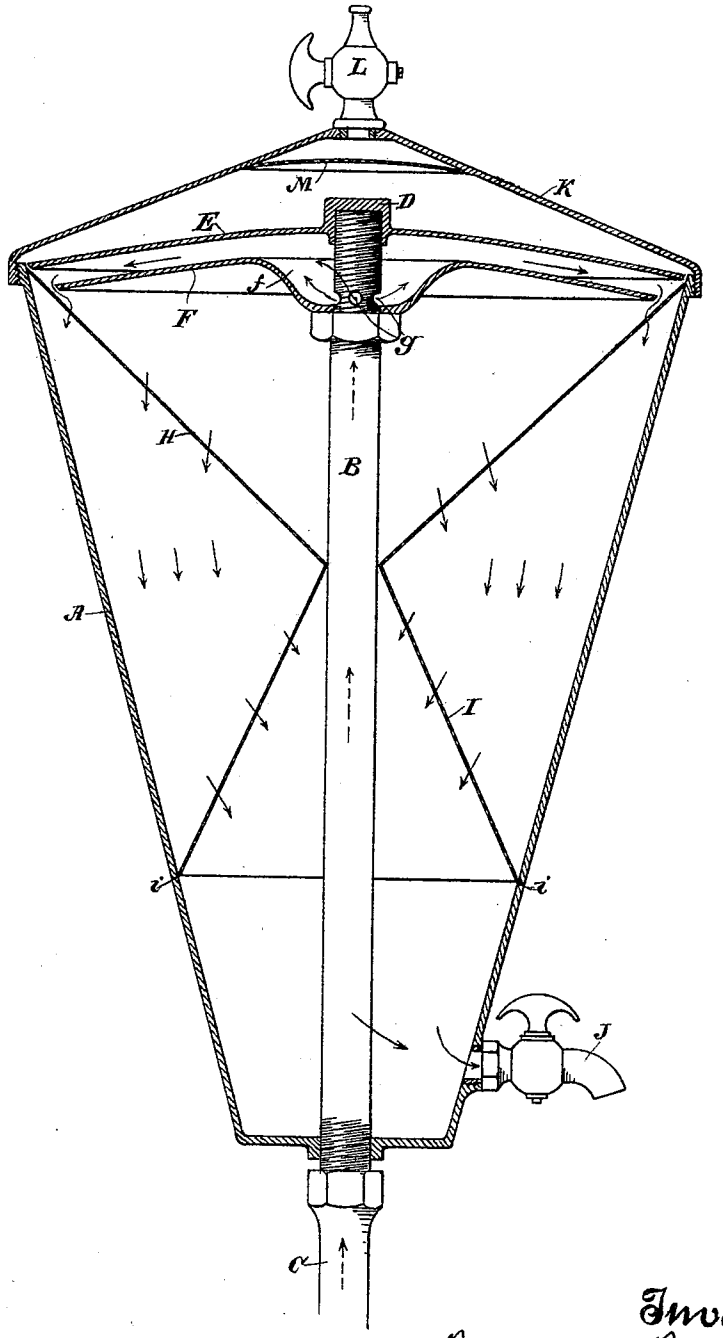
No. 621,998. Patented Mar. 28, 1899.

F. E. FARLEY & J. H. JACKSON.

DEVICE FOR DRAWING STEAM BEER.

(No Model.) (Application filed Jan. 5, 1899.)



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UNITED STATES PATENT OFFICE.

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DEVICE FOR DRAWING STEAM-BEER.

SPECIFICATION forming part of Letters Patent No. 621,998, dated March 28, 1899.

Application filed January 5, 1899. Serial No. 701,229. (No model.)

To all whom it may concern:

Be it known that we, FRANK E. FARLEY, residing in the city and county of San Francisco, and JOHN H. JACKSON, residing at Watsonville, county of Santa Cruz, State of California, citizens of the United States, have invented an Improvement in Devices for Drawing Steam-Beer; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to a device which is designed for the purpose of drawing effervescent liquids and separating therefrom the carbonic-acid gas, so that the liquid can be drawn in a comparatively solid form and without too much foam.

It consists, essentially, of a closed casing having a discharge-faucet or draw-off cock at the lower end. A pipe connects this casing with the cask or reservoir containing the liquid to be drawn, and this pipe delivers the liquid charged with gas into the upper part of the casing, where it first passes over a divergent distributing-plate and is thence delivered so as to pass through a series of foraminous or screen surfaces interposed between the reception and delivery pipes.

It also comprises details of construction which will be more fully explained by reference to the accompanying drawing, which is a sectional elevation of the apparatus.

The outer casing A may be made of any suitable or desired shape for the required purpose. As here shown it is in the form of a frustum of a cone having the narrow end at the bottom, and upon one side of this narrow end is a draw-off faucet J of any suitable or desired construction through which the liquid may be drawn at any time and in any desired quantity. This casing A is interposed at some convenient point between the cask or other receptacle containing the liquid and the draw-off faucet, and a connection is made from the cask into the upper part of the chamber by any suitable means. As here shown, the pipe B extends up through the interior of the casing A and has holes *g* made near its upper end through which the liquid may discharge. The lower end of the pipe projecting through the casing A is coupled to the supply-pipe C.

Upon the upper end of the pipe B, which may be screw-threaded for the purpose, fits a cap D, which forms the center of a slightly-convex disk or plate E, and at a short distance below it is a second circular plate or disk F, having the center depressed, as shown at *f*, thus forming a considerable chamber at this point between the upper and lower disks, but exterior to this chamber the disk F approaches closely to the disk E, so that liquid passing through the openings *g* into the chamber *f* will flow between the two plates E and F and be thus distributed in a thin sheet and discharged all around the periphery of the disk F. Passing over the periphery of this disk, it falls into the conical screen H, the upper and widest end of which fits around the interior of the upper part of the case A and close to the edge of the disk E. This conical perforated screen H approaches closely to the tube B at the lower end, and from this point a second conical screen I diverges outwardly, having the lower periphery fitting into a groove or channel *i* in the exterior case A, which retains the screen formed of the two cones H and I in place.

K is a removable top or cap screw-threaded and fitting upon the upper end of the case A and easily removably therefrom, and when removed the disks E and F can be removed from the tube B and the screens H I can be withdrawn so that the whole apparatus can be easily cleaned.

For the escape of any gas which may pass above the diaphragm E we have shown an escape-cock L, connecting with the upper part of the cover, and a screen M is fixed just below the discharge-passage and serves to break up any globules, allowing gas to pass out, and the liquid will drop back upon the plate E and eventually return into the chamber A.

The operation of the device will then be as follows: The beer or other liquid is delivered by the pipe B or any equivalent pipe opening into the depressed chamber *f* and between the two disks E and F, and flowing thence outwardly it discharges over the edge of the disk F, passing down and through the incline or conical screen H, which commences the separation of the liquid from the gas. Thence it falls upon the outside of the screen I, through which it again passes into the lower part of

the chamber A, and is then in a sufficiently "solid" condition, as it is termed, so that it can be drawn from the faucet J with no more gas than is necessary to give it the requisite sharpness.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A device for drawing beer and effervescent liquids consisting of a chamber having a discharge cock or passage at the bottom, annular disks fixed in the upper part of the chamber in close proximity, an inlet-pipe through which the liquid is delivered into the space between said disks and discharged around the periphery, and screens disposed substantially as described through which the liquid passes on its way to the discharge-passage.

2. A device for drawing beer and equivalent effervescent liquids, consisting of a chamber having a discharge-passage at the lower end, an inlet-pipe extending centrally upward from below having discharge-openings at the upper end, disks fixed with relation to said openings so that the liquid is delivered between the two and distributed outwardly over the periphery of the lowermost, and conical screens disposed in the lower part of the casing through which the liquid passes on its way to the discharge-passage.

3. A device for drawing beer and equivalent effervescent liquids consisting of a conically-shaped chamber having a discharge-passage in the lower end, concavo-convex disks fixed adjacent to each other having a narrow annular space between them, and peripheral channels around between the outer edges and the interior of the case, a chamber or depression made in the lowermost of the disks, a pipe or passage having openings delivering the liquid into said chamber from which it is distributed outwardly over the periphery of said disk, conical screens disposed with relation to each other so that the liquid passes through said screens on its way to the discharge-passage.

4. A device for drawing beer and equivalent effervescent liquids consisting of a conical case divergent upwardly from a narrow base and having a discharge cock or passage at the bottom, an inlet-pipe connecting with the source of supply having discharge-openings at a point near the upper part of the casing, concavo-convex disks, the lowermost of which has a central chamber or depression into which the supply-pipe discharges, said disks being fixed to form a thin annular space between them through which the liquid may flow from the receiving-chamber, conical screens disposed with relation to each other below the lowermost disk through which the liquid passes on its way to the discharge-passage, and a gas-discharge cock and interposed screen in the upper part of the chamber, substantially as described.

5. A device for drawing beer and effervescent liquids comprising a casing in the shape of a frustum of a cone divergent from the narrow end upwardly, a discharge passage and cock at the lower end, a removable convex screw-cap fitting the enlarged upper end having a gas-discharge cock and screen fixed therein, a vertical central pipe adapted to connect with the source of supply extending upwardly to near the top of the casing having discharge-openings around its upper end, concavo-convex disks removably fixed with relation to said pipe, and discharge-openings by which the liquid is delivered between the disks and distributed outwardly and over the periphery of the lowermost disk, a double convex screen, the upper end converging downwardly from the periphery of the casing so that liquid flowing will be delivered upon its inner surface and pass out through the screen-openings, the lower part diverging outwardly from the point of junction of the two so that liquid will pass inwardly as it flows through the perforated surface on its way to the discharge-faucet, a channel formed in the inner periphery of the casing in which the edge of the lowermost screen is supported, the parts being removable substantially as described.

In witness whereof we have hereunto set our hands.

FRANK E. FARLEY.
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