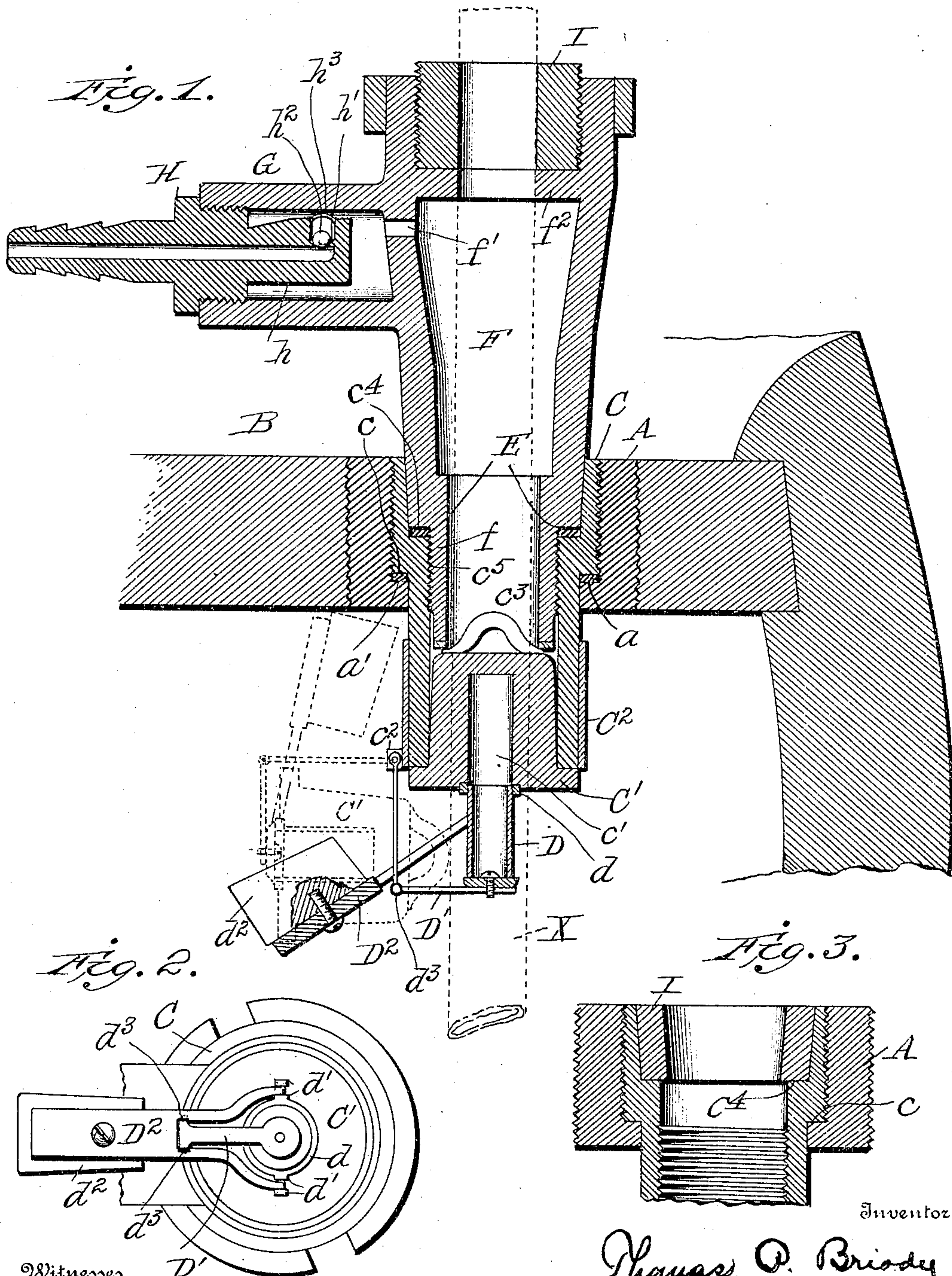


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T. P. BRIODY.
DEVICE FOR DISPENSING LIQUIDS.
APPLICATION FILED MAY 28, 1904.



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THOMAS P. BRIODY, OF SOUTH BETHLEHEM, PENNSYLVANIA.

DEVICE FOR DISPENSING LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 784,247, dated March 7, 1905.

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To all whom it may concern:

Be it known that I, THOMAS P. BRIODY, a citizen of the United States, residing at South Bethlehem, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Dispensing Liquids; and I do 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.

This invention relates to that class of devices designed to facilitate the drawing off of ale, beer, and other charged liquids from casks or barrels.

One object of the invention is to effect a saving to brewers of the bung corks or stoppers now in common use.

Another object of my invention is to afford equal facility for tapping casks or barrels located at the point of use or in a basement or cellar and remote from and connected with the point of use by suitable piping.

With these and other objects in view the invention consists in the matters hereinafter described in detail, and particularly pointed out in the claims.

Referring to the accompanying drawings, in which similar letters of reference are used to indicate corresponding parts in the several views, Figure 1 is a fragmentary section of the head of a keg, showing my improved bung and its appurtenances secured therein. Fig. 2 is an elevation of the inner end of the bung, and Fig. 3 is a section showing the bung adapted for modified use.

In carrying out my invention a metal bushing A is screwed into the head B of a keg or cask, said bushing being threaded interiorly and exteriorly and provided at its inner end with an inwardly-projecting annular flange *a*, affording a seat for a packing ring or gasket *a'*.

Threaded into the bushing A is a tubular bung C, the outer end of which is preferably flush with the bushing A, as shown, and preferably provided with notches to engage a wrench or tool, by means of which the bung C may be introduced into the bushing or removed therefrom. At a suitable distance from the outer end the bung is reduced in di-

ameter, thus providing a peripheral shoulder *c*, designed to be seated upon the packing *a'* of the bushing, and thus form a liquid-tight joint. The inner end of the bung extends some distance beyond the inner end of the bushing and is fitted at its extremity with a gravity valve or plug C', designed to normally close the bore of the bung, but be unseated by force applied from the exterior of the keg through the bore of the bung—as, for instance, through the instrumentality of a pipe leading to a remote beer-pump or the ordinary beer-faucet.

The valve or plug C' is provided with a cylindrical socket *c'* to receive a hollow plunger D, which is supported by an L-shaped bracket D', pivoted at its upper end between lugs *c''*, projecting from a sleeve C'', secured to the bung-barrel. The bracket may, however, if desired, be pivoted in like manner to the bung-barrel, and thus dispense with the sleeve C''.

A forked lever D² straddles the vertical arm of the bracket D', the inner ends thereof being pivoted in lugs *d'*, formed on opposite sides of a collar *d*, surrounding the socket *c'* of the plug C'. The free end of the lever D² is provided with a weight *d''* and the legs thereof rest and slide upon shoulders *d'''* at the angle of the pivoted bracket D'.

In operation when the tap-pipe X or a spigot is forced downward in the bung the plug C' is first moved downward vertically on the guide or plunger D, the lever D² sliding on and moving round its fulcrum on the shoulders *d'''* of the bracket until the lever is in a horizontal position and the plug C' being so far projected from the bung that it comes in contact with the head of the guide or plunger D. Vertical movement now ceases, and the plug, lever, and bracket move together on the pivot of the latter to the position shown in dotted lines in Fig. 1, thus affording a clear passage for the tap-pipe, as shown. To avoid injury to the tap-pipe and to the inner surface of the plug through their contact, I provide the plug with an arched wear-plate or bail *c'''*. This bail may also be used for the purpose of drawing the plug into position in the event of any of the parts becoming broken or deranged for any reason. When the cask or keg has

been emptied, the tap-pipe X (or spigot, if used) is withdrawn, and the weight of the lever carries the plug and its associated parts to the position where the plug must enter the bung by direct vertical movement. At this point the weighted lever forces the plug upward on the guide, and as there will be some air or gas pressure in the keg the movement of the plug to its seat in the bung will be made more positive and prompt.

The inner and outer ends of the bung C are of different diameters interiorly, being separated by an annular shoulder c^4 , which affords a seat for the inner end of a wood, cork, or rubber gasket E in case such is used to form a tight joint with a tap pipe or faucet.

As a further improvement, I have devised a bung attachment comprising an elongated tubular body F, provided at one end with an externally-threaded stub f to fit the internal thread c^5 of the smaller part of the bung below the shoulder c^4 . The attachment conforms in shape exteriorly with the interior of the bung as to the parts which are brought in contact, so that when assembled for conjoint use they are connected by a liquid-tight joint.

Near the outer end of the barrel F a tubular boss G is secured, the interior bores of the barrel and boss being connected by an opening f' to permit free passage of air or gas therethrough.

A vent-plug H is threaded into the outer end of the tubular boss G, said plug carrying at its inner end a stem h , having an L-shaped vent-opening h' , which is normally closed by a gravity-valve h^2 , as shown. A cage h^3 is arranged at the top of the vertical leg of the vent-opening h' to prevent displacement of the ball h^2 when the plug is screwed into or out of the tubular boss G.

The outer end of the vent-plug H is shaped to receive the end of a rubber or other air-pipe, which will lead from an air-pump adjacent to the faucet of the keg whether near or more or less distant in order that air may be forced into the keg should the gas-pressure therein be insufficient to give a good supply to the faucet.

It will be noted that the vent-plug H is of considerably less diameter than the tubular boss G and that the opening f' between the boss and barrel F is somewhat above the bottom wall of the boss. This construction is designed to prevent moisture from entering the barrel through the air pump and pipe, it being obvious that any moisture would condense and fall within the boss below the plug.

The outer end of the barrel F is provided with a centrally-perforated diaphragm f^2 , which may be rigid or flexible, as desired, and exterior to the diaphragm is a tubular

plug I, threaded into the mouth of the barrel and serving as a guide to the tap-pipe X.

In operation the tap-pipe X will be forced down through the barrel and bung, dislodging the plug of the bung, as hereinbefore described. Should the pressure of gas in the keg be insufficient to insure proper flow at the distant faucet, air may be forced into the top of the keg through the air-valve, but cannot escape through the same channel, as the valve is automatically returned to its seat in the absence of pressure from the air-pump.

From the foregoing it will be seen that I have provided efficient means to close the keg on the withdrawal of the tap-pipe X and to supply adequate pressure to force beer or other liquid to the faucet whether near or distant. In some instances brewers may prefer to use the ordinary loose cork or wooden plug at the inner end of the bung for various reasons, in which case the barrel F might be dispensed with and the plug C' and its attachments may be removed. The bung being threaded into the bushing A may be readily removed at a brewery and a cork or other plug be inserted into the inner end of the bung, whereby the usual bar-spigot is available to extract the contents of the keg by familiar manipulation not necessary to describe.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a device for dispensing liquids, in combination, a bung, an angle-bracket pivoted at one end to the bung, a lever fulcrumed on the bracket and weighted at one end, and a plug carried by the other end of the lever, substantially as described.

2. In a device for dispensing liquids, in combination, a bung, an angle-bracket pivoted at one end to the bung and provided on its other end with a guide, a lever fulcrumed on the bracket and weighted at one end, and a plug carried by the other end of the lever and engaging the guide of the bracket, substantially as described.

3. In a device for dispensing liquids, a bung provided at its inner end with a self-seating plug, a guide to direct the initial movement of the plug, a pivoted bracket supporting said guide, and a weighted lever connected to the plug and supported on the bracket, substantially as described.

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

THOMAS P. BRIODY.

Witnesses:

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