No. 713,975. Patented Nov. 18, 1902.

P. FORG.

BUNG AND TAPPING DEVICE FOR BEER BARRELS.

(Application filed May 19, 1902.)

(No Model.)

Fig. 3.

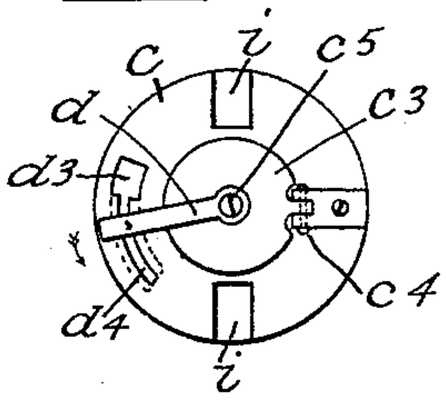


Fig. 1.

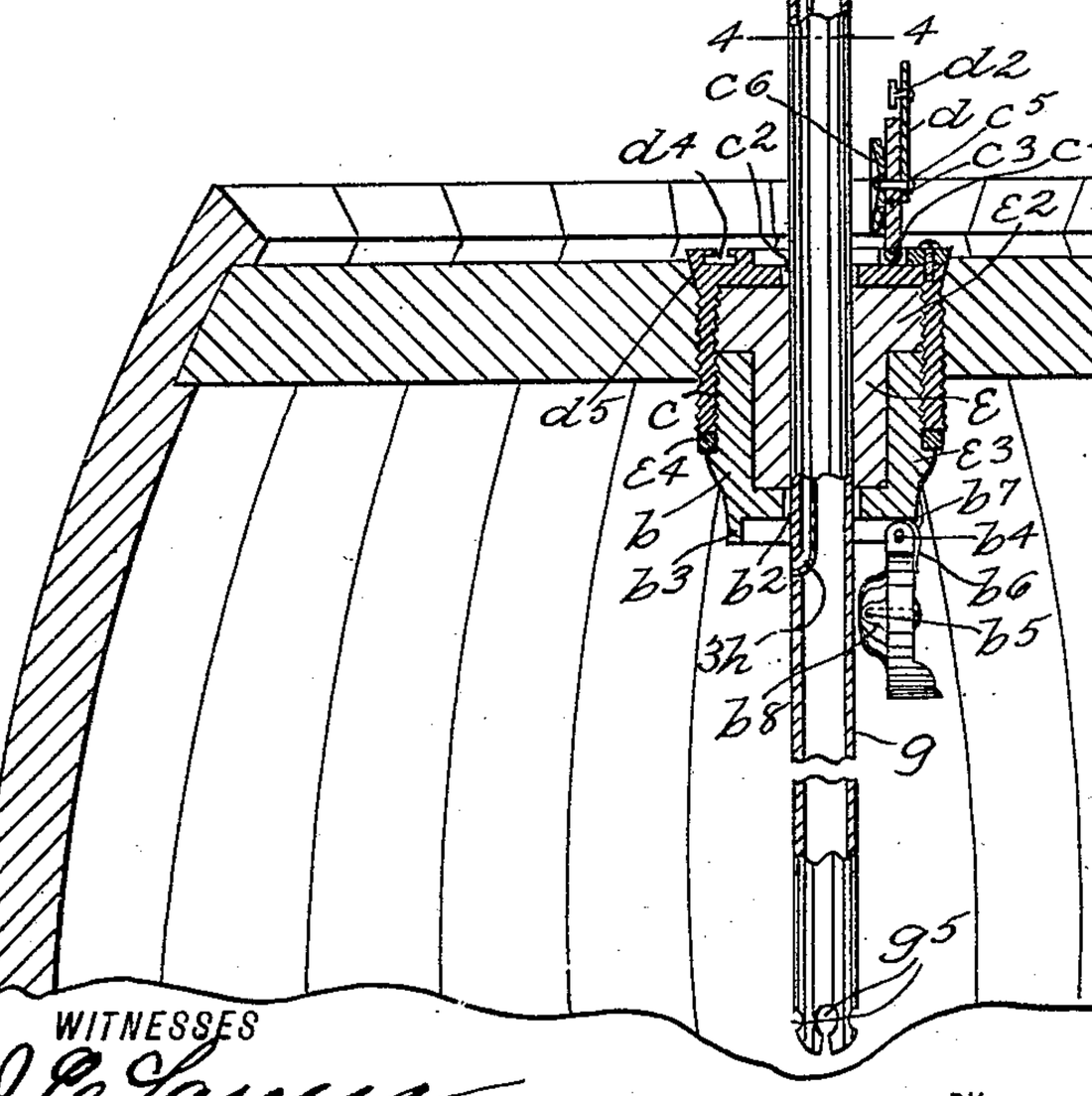


Fig. 2.

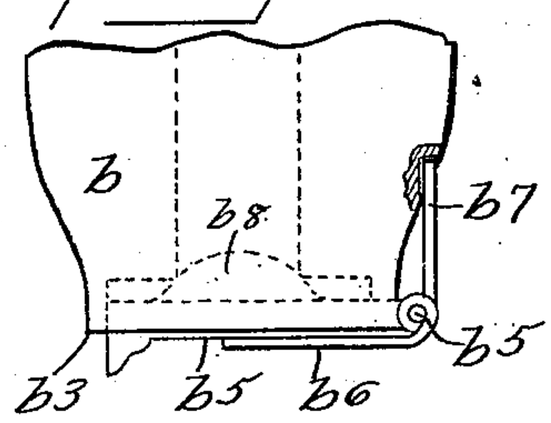
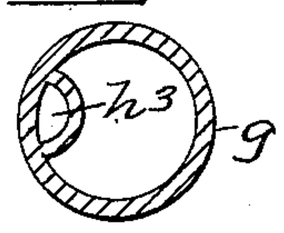


Fig. 4.



WITNESSES

J. E. Larsen

F. A. Stewart

INVENTOR

Philipp Forg.

BY

Edgar Tate & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

PHILIPP FORG, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO JOSEPH FORG, OF BROOKLYN, NEW YORK.

BUNG AND TAPPING DEVICE FOR BEER-BARRELS.

SPECIFICATION forming part of Letters Patent No. 713,975, dated November 18, 1902.

Application filed May 19, 1902. Serial No. 107,890. (No model.)

To all whom it may concern:

Be it known that I, PHILIPP FORG, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bung and Tapping Devices for Beer-Barrels, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved bung for beer-barrels and also an improved beer-barrel-tapping device which is adapted to be used in connection therewith; and with these and other objects in view the invention consists in a beer-bung for beer-barrels and a tapping device for beer-barrels constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a sectional view of the end of a beer-barrel provided with my improved beer-bung and tapping device; Fig. 2, a side view of a part of the bung on an enlarged scale; Fig. 3, a top plan view of the bung; and Fig. 4 a section on the line 4 4 of Fig. 1, Figs. 3 and 4 being also on a scale larger than that of Fig. 1.

In the drawings forming part of this specification I have shown at a one end of a beer-barrel, which is provided with the usual head, and although I have referred to the use of my improvement only in connection with beer-barrels it will be apparent that the same may be employed in connection with ale-barrels or other liquor barrels or kegs and also in connection with barrels, kegs, or other vessels designed for use in holding liquids of any kind.

In the practice of my invention I provide a bung which comprises a bottom thimble-shaped portion b, which is inverted, as shown in Fig. 1, and a top thimble-shaped portion c, which is screwed onto the bottom portion b, and the bottom of the part b is provided with a central opening b^2 and preferably with an inward-depending flange or rim b^3, and hinged at one side thereof, as shown at b^4, is a spring-operated valve b^5, which normally operates to close the opening b^2. The spring which operates in connection with the valve b^5 is connected with the hinge-pin at b^4, and a part of said spring bears on the back of the valve, as shown at b^6 in Fig. 2, and another part of said spring bears on the side of the bottom portion b^3 of the bung, as shown at b^7, and may be secured to said body portion of the bung and countersunk therein, if desired, and this spring is also shown in Fig. 1, and the valve b^5 preferably consists of a metal casing provided with a central member b^8, of rubber, which fits in and is adapted to close the opening b^2, or this valve may be made in any desired manner. The top of the upper portion of the bung is also provided with a central opening c^2, which is adapted to be closed by a valve-plate c^3, hinged at one side of said opening, as shown at c^4, and secured to the under side of the valve-plate c^3 is a rubber disk or plate c^6, which constitutes the valve proper and which is adapted to close the opening c^2, and pivoted to the upper or outer side of the valve-plate c^3 centrally thereof at c^5 is an arm d, the free end of which is provided on its under side with an annular lug or projection d^2, which is adapted to enter a corresponding recess d^3 in the top surface of the part c of the bung, and communicating with this recess d^3 is a segmental slot d^4, which is enlarged inwardly or is T-shaped in cross-section, as shown at d^5 in Fig. 1, and the annular lug or projection d^2 is adapted to enter this slot when the arm d is turned in the direction of the arrow shown in Fig. 3, and by means of this construction the valve-plate c^3 may be locked to the bung so as to close the opening c^2 whenever desired, and in practice the arm d may be sealed in the usual manner to the bung when said valve-plate c^3 is locked, and by this means the barrel a or other vessel may be both securely closed and sealed whenever desired or when necessary.

Within the bottom portion b of the bung I place a tubular packing e, of rubber or other suitable material, and this packing is enlarged at the upper end, as shown at e^2, and entirely fills the bung. The separate parts b and c of the bung are threaded and are adapted to be screwed together, as shown in Fig. 1, and the

bottom portion b is provided with an annular shoulder e^3, between which and the top portion c is preferably placed an annular packing e^4, and when the separate parts of the bung are screwed together the packing e will be pressed so as to close or substantially close the central opening therethrough.

The improved tapping device consists of a tube g, which may be of any desired length and which is provided at the upper end with the usual coupling g^2, provided with a valve-casing g^3 and valve g^4, and the lower end of said tube is preferably conical in form and provided with opening g^5 in the sides thereof. At a predetermined distance below the upper end of the tube g I secure a T-coupling h, having a branch h^2, and communicating with this branch h is a supplemental inner tube h^3, placed in the tube g and extending downwardly therein to a predetermined point and opening out through the side of tube g, as shown at 3^h.

Connected with the coupling h or with the branch h^2 thereof is an ordinary coupling-tube h^4, provided with a nozzle h^5, with which is connected a flexible tube h^6, through which air under pressure may be passed in the usual manner, and the inner end of the tube h^4 is provided with a flexible cap h^7, of rubber, having a slot h^8 formed therein, which constitutes an automatic valve, and air may be forced into and through the tube h^3 by means of the pipe h^6, and air cannot pass outwardly through the tube-coupling h^4.

Although I have described the part h^3 as a tube within the tube g, said part is shown as a passage formed partly by the tube g; but this passage may be formed in any desired manner.

The top portion c of the bung is provided in the opposite sides thereof with radial recesses i, by means of which an ordinary wrench or spanner may be employed for screwing the bung into the head of the barrel, and the operation of tapping the barrel will be readily understood in the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

It will be understood that the bung may be used as an ordinary bung for the purpose of closing the beer barrel, keg, or other vessel, and whenever it is desired to tap such barrel or vessel the arm d of the valve-plate c^3 is turned backwardly or in a direction opposite to that indicated by the arrow in Fig. 3, and said valve-plate is turned or raised into the position shown in Fig. 1, and the lower end of the tube g is driven downwardly through the bung, as indicated in Fig. 1, and in this operation the lower end of said tube opens the valve b^5 against the operation of the spring which bears thereon, and the beer is free to pass out through the tube g in the usual manner. As the beer or other liquor is drawn through the barrel air may be forced thereinto through the parts h^3, h^4, and h^5, as will be readily understood, and the requisite pressure may thus be maintained at all times on the liquid or liquors within the barrel, and the length of the tube or passage h^3 is such that when the tube g is forced into the barrel or other vessel through the bung the port h^3 at the lower end of said tube or passage will still be below said bung.

In the operation of driving the tube g through the bung the said tube is forced through the packing e, and said packing fits said tube so tightly that no liquid or liquor can pass out through the bung, and this is also true of the air within the barrel or vessel, and by reason of this fact the requisite pressure within the barrel or vessel may always be maintained by forcing air through the parts h^3, h^4, and h^5.

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

A bung for barrels and other vessels comprising a thimble-shaped top portion, and an inverted thimble-shaped bottom portion, said parts being correspondingly threaded and adapted to be screwed together, the bottom portion being provided with a central opening and a spring-operated valve for closing the same and which is adapted to open outwardly and the top portion being provided with a central opening and a hinged valve-plate for closing the same, means for locking said hinged valve-plate in a closed position, a packing placed within the bung and adapted to be compressed when the separate parts thereof are screwed together, and a tapping device comprising a tube adapted to be forced through said bung when the top valve-plate is open, said tube being provided at its upper end with a valve and below said valve with a T-coupling, and a supplemental tube or passage communicating with the branch of said coupling and extending downwardly within said tube a predetermined distance and opening outwardly through the side of said tube, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 15th day of May, 1902.

PHILIPP FORG.

Witnesses:
F. A. STEWART,
C. E. MULREANY.