

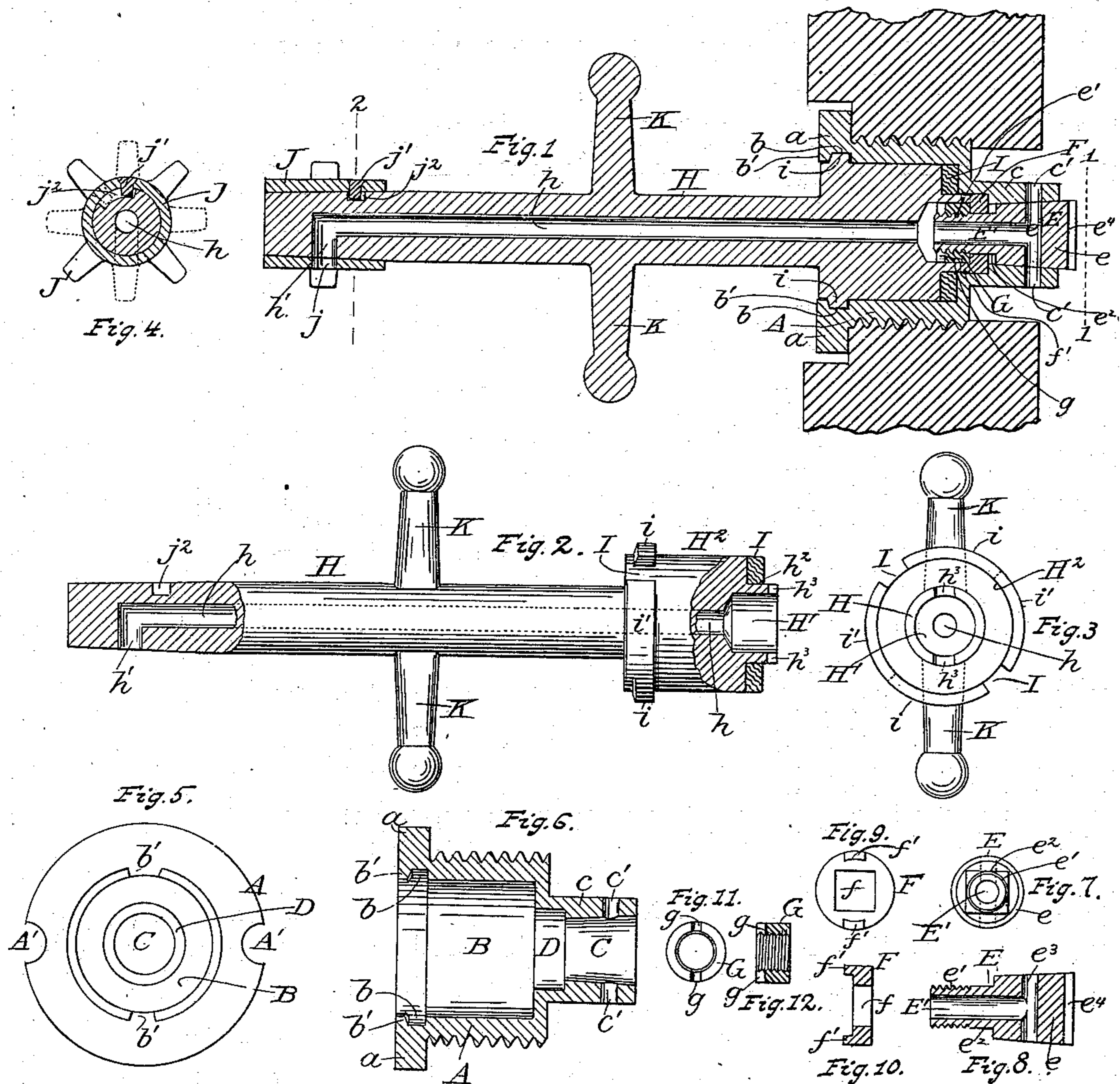
No. 651,999.

Patented June 19, 1900.

H. S. JOHNSON.
BEER FAUCET.

(Application filed Apr. 16, 1897. Renewed Mar. 22, 1900.)

(No Model.)



Witnesses.

Charles S. Kirk
A. L. Kirk

Hiram S. Johnson,
Inventor.

by Alex. Selkirk

Attorney.

UNITED STATES PATENT OFFICE.

HIRAM S. JOHNSON, OF CANAAN FOUR CORNERS, NEW YORK.

BEER-FAUCET.

SPECIFICATION forming part of Letters Patent No. 651,999, dated June 19, 1900.

Application filed April 16, 1897. Renewed March 22, 1900. Serial No. 9,787. (No model.)

To all whom it may concern:

Be it known that I, HIRAM S. JOHNSON, a citizen of the United States, residing at Canaan Four Corners, in the county of Columbia and State of New York, have invented new and useful Improvements in Beer-Faucets, of which the following is a specification.

My invention relates to beer-faucets of the class known as "lock-valve" faucets; and it consists in the combinations of devices and elements hereinafter described, and set forth in the claims; and the object of my invention is to provide a two part or sectional faucet in which one part comprises a screw-plug adapted to close the usual faucet-receiving perforation provided in the head of the cask or vessel and having in it a lock-valve and adjuncts thereto which can only be operated by a key having correspondence of its operating part with an adjunct of said valve for holding with the same, and in another part a key having a central bore and provided with a discharge-opening and a water-tight closing-cap, also provided with a discharge-opening and adapted to be turned to register at will one of said openings with the other, whereby the contents of the cask may be drawn from or be stopped from a flow from the same at will of an operator. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of a faucet embodying the improvements in this invention. Fig. 2 is a view of the same from its outside with parts shown in section. Fig. 3 is an end view of the faucet on dotted line 1 in Fig. 1. Fig. 4 is a section taken at dotted line 2 in Fig. 1. Fig. 5 is a view of the screw-threaded plug, taken from its front. Fig. 6 is a sectional view of the same. Fig. 7 is a view of the revolving valve, taken at its forward end. Fig. 8 is a sectional view of the same. Fig. 9 is a plan view of the valve-keeper. Fig. 10 is a sectional view of the same. Fig. 11 is a front view of the retaining-nut, and Fig. 12 is a section of the same.

Similar letters refer to similar parts throughout the several views.

A is the screw-threaded plug screwing into the head of the cask or other vessel, having flange *a*, provided with notches A' A' for

engagement with a suitable wrench for convenience for screwing the plug into the head. This plug is provided with the central key-chamber B, extended inwardly from the flange end thereof, internal annular groove *b*, and guards *b' b'*, which guard the entrance to the said chamber of the key to be employed with the plug, so as to require a correspondence of the one with the other, and these guards *b' b'* are shown to be of different sizes for engagement with notches of different sizes and respectively corresponding in the key, as will be hereinafter pointed out. C is the valve-chamber in said plug, which chamber extends from the rear end inwardly and is preferably contained in an inwardly-projected wall *c*, integral with said plug. This valve is made with a tapering form from its outer end toward its inner end and communicates with the chamber B through the valve-keeper chamber D. One or more perforations *c'* through wall *c* of the valve-chamber C serve as inlet-ports to the outlet of the valve working within said chamber.

E is a rotating valve having its valve-head *e* of tapering form for correspondence and nice fitting in the valve-chamber C, so as to produce a water-tight joint between. This rotating valve is provided with screw-threaded stem *e'* and squared middle portion *e²* and the longitudinal central perforation *E'* and transverse perforation *e³*, which is adapted to register with the perforations *c'* in wall *c* of the valve-chamber C. A nick *e⁴* is also provided in the rear end of the valve-head for engaging with an instrument for holding the valve E from turning when the parts there-with are being adjusted and set.

F is the valve-keeper of diameter corresponding with the chamber D and provided with a central square perforation *f*, corresponding with the square portion *e²* of the valve-piece E for holding with the same. The lower side of this keeper F bears against the bottom of chamber D and is provided on its forward end or side with one or more engaging devices *f'*, made, preferably, in the form of projections *f'*, Figs. 1, 9, and 10, for engagement with coacting engaging device of a key to be employed with this faucet.

G is a retaining-nut provided with notches

g in its forward end for engagement with a suitable instrument for operating said nut for tightening or loosening said nut against the valve-keeper F as may be required for adjusting said valve as to its tightness.

H is the faucet-key, which may be of any preferred length and form and be adapted to have with it a screw-threaded end portion (not shown) for receiving a tube or pipe. (Not shown.) This key is centrally perforated from its rear end forwardly to near its forward end by the discharge-bore h , which communicates with the discharge-outlet h' , made through the wall of the key from its lower side to said bore h , as shown in Figs. 1 and 2. The rear end of the discharge-perforation h is enlarged to produce chamber H' for receiving the retaining-nut G. The rear end portion of the wall of this key is enlarged to a diameter corresponding with the diameter of chamber B of the plug A, and projected from the rear end of this enlargement H^2 of said body of the key is the annular projection h^2 of diameter corresponding with the diameter of the chamber D, receiving the same, as shown in Fig. 1, and in the rear end of this annular projection are notches h^3 for receiving the engaging devices f' in the valve-keeper F. Integral with the metal of the enlargement H^2 are sections of a flange which form tongues $i i$ of width and diameter corresponding with the annular groove b in the fore part of chamber B of plug A, so as to nicely fit the same, and tongues $i' i'$, integral with tongues $i i$ and of greater width than the latter, as shown in Fig. 2, so that these tongues i and i' will alternate. Between the terminals of these tongues i and i' are openings I I, corresponding with guards b' , respectively, and adapted to receive the same and permit the narrower tongues $i i$ to have place opposite to groove b and work in the same to the limit allowed by the tongues $i' i'$ when the key is revolved in a proper direction and until the wider tongues i' strike guards b' , where the former joins with tongues $i i$, which latter holds in with groove b and retains the key in place and permits the key to have given it a quarter-turn for revolving the valve E a quarter-turn in either direction for throwing the transverse perforation e^3 into registration with inlet-perforations c' or the reverse, accordingly as said key is turned.

I is a gasket arranged between the rear end of key H and the bottom wall of chamber B of the plug A for making a gas and water tight joint between.

J is the discharge-closing cap, made with a tapering bore, so as to nicely fit the slightly-tapering end portion of the key, as shown in Fig. 1. This closing-cap is provided with a discharge-perforation j , through the wall portion of said cap at a point adapted to register with the outlet-opening h' from bore h of the key, and at will be turned away from the

same, as may be required for opening the key for drawing liquids through the same or closing it against a discharge of the liquid. A retaining-pin j' , working in a short notch or groove j^2 in the upper side of the key, holds this closing-cap in place and both allows and limits the rotary movement of said cap on the key. Finger-pieces J' are provided on this cap for convenience for revolving the same in either direction.

K K are arms integral with the body of the key H or secured thereto for convenience in turning said key in either direction when required.

When the parts of this faucet are combined and assembled as described and as shown in Fig. 1, revolving the key H in one direction will cause perforation e^3 in the valve to be registered with perforation c' in the rearward projection of plug A, when the liquid in the vessel may readily flow into the bore of the key H, but will not be discharged therefrom until the operator turns the cap J in a proper direction, and when so turned the liquid will continue to be discharged from the faucet until either the said cap J or the key H is turned in a proper direction, and when both said cap J and key H are turned in proper direction for cutting off the flow from the cask or other vessel a double closing of the discharge of liquid will be effected. At will an operator may by turning the key in a proper direction so turn the valve E as to close the same, and when so closed he may by turning the key so that the openings I I between the respective tongues $i i$ register with the guards $b' b'$ of the plug A disengage said tongues from a holding in said groove and remove the key from the plug A.

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

1. In a lock-valve faucet, the combination and arrangement with the faucet-key H, having for its rear end portion the enlargement H^2 provided with flange-form tongues $i i$ integral with the wider flange-form tongues $i' i'$ for holding with a screw-threaded plug and having its outer end portion tapering and its body having in it the longitudinal discharging-bore h , running from its rear end intake forward to the lateral discharge-outlet h' , and short notch or groove j^2 in said tapering portion, of the discharge-closing cap J, having a tapering bore or chamber nicely receiving the tapering forward portion of said key H and provided with the discharge-perforation j adapted to be registered with the discharge perforation or outlet h' in said key, and the retaining-pin j' holding with cap J and working in groove j^2 , substantially as and for the purposes set forth.

2. In a lock-valve faucet, the combination with a screw-threaded plug having a tapering valve-chamber and a key-chamber, of a ta-

pering valve-piece having a central perforation and an outlet therefrom, a valve-keeper provided with one or more engaging perforations f' , and nut described, of a key having
5 a central discharge communicating with the central perforation of the valve-piece and provided with annular projections at its in-

ner end and engaging notches h^2 , substantially as and for the purposes set forth.

HIRAM S. JOHNSON.

Witnesses:

ALEX. SELKIRK,
CHARLES SELKIRK.