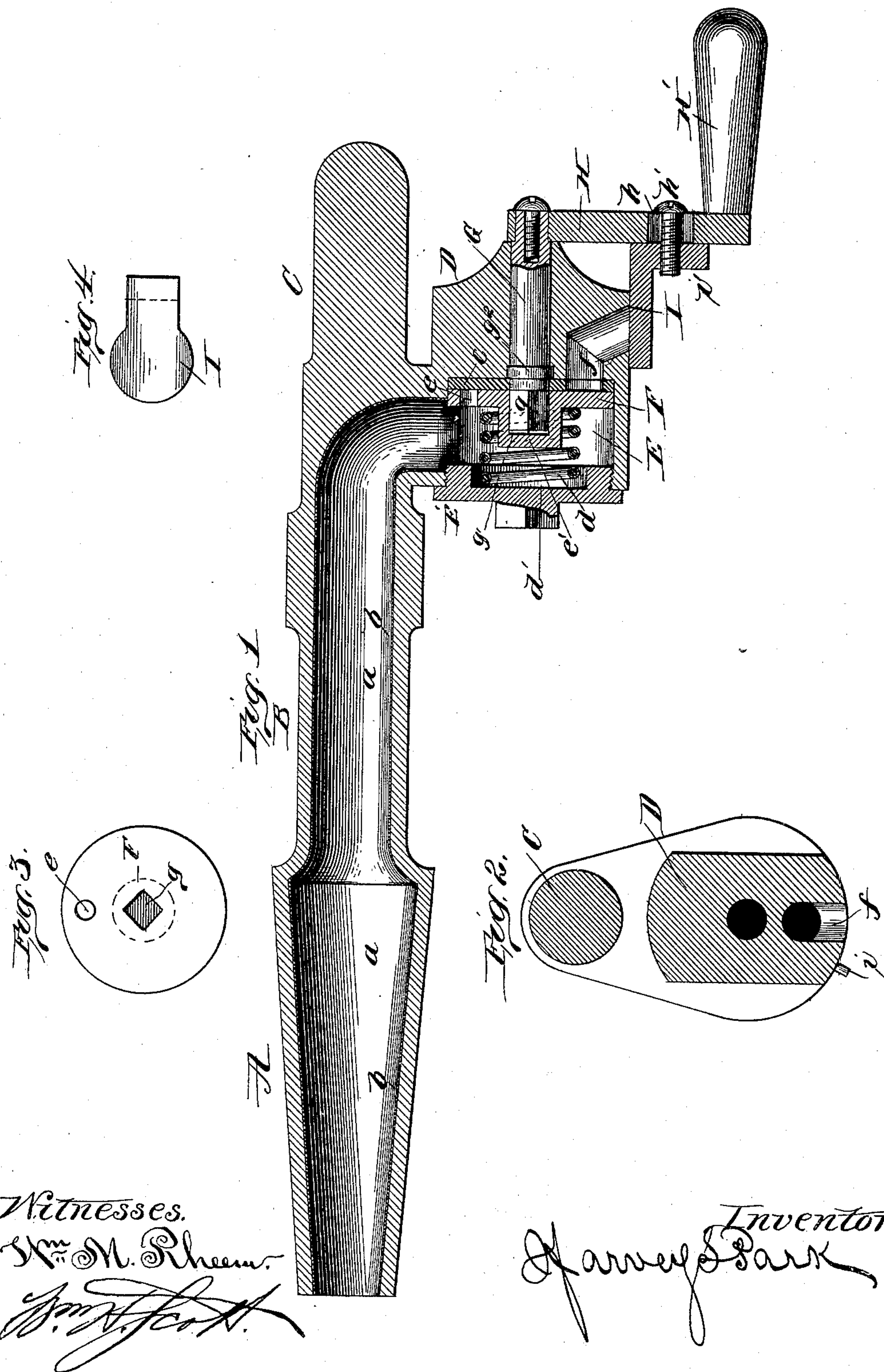


(No Model.)

H. S. PARK.
FAUCET.

No. 476,167.

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To all whom it may concern:

Be it known that I, HARVEY S. PARK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Beer-Cocks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, forming a part hereof, in which—

Figure 1 is a central longitudinal section. Fig. 2 is a cross-section through the valve-chamber. Fig. 3 is a face view of the valve with the valve-stem in section. Fig. 4 is a detail of the cover for closing the discharge-opening.

The objects of this invention are to improve the construction and operation of beer-cocks, more especially in reference to the valve for opening and closing the discharge, by giving the valve a positive seat when closed, to prevent the escape of gas, and to prevent the admission of dirt, dust, and insects into the discharge-opening, and have the means for closing the discharge-opening actuated with the movement for closing the valve, and to improve generally the construction and operation of the cock as a whole; and its nature consists in the several parts and combinations of parts hereinafter described, and pointed out in the claims as new.

In the drawings, A represents the entering end of the cock, which may be formed tapering with a smooth exterior, as shown, or the exterior can be provided with a screw-thread.

B is the body or stem of the cock, through which and the end A is a passage *a*, and this passage, as shown, is lined or coated with tin *b*.

C is the driving-head for forcing the cock into place.

D is a wall inclosing the valve-chamber.

The parts A B C D can all be cast or formed in a single piece, as shown, or they could be formed of separate pieces screw-threaded or otherwise firmly united one to the other to form in effect a continuous or single piece.

E is the valve-chamber, into which, on one side, the opening *a* leads, which chamber is formed in the wall D and is open on one side for the insertion of the valve, and the open-

ing, as shown, is tightly closed by a screw-threaded plug E'.

F is the valve, formed of an annular disk, with a flat acting face, and having a central hub *e'*, with a square opening *g'*. The disk portion of the valve has a port *e* through it, which port can be brought into line with the discharge-opening *f* in the wall D, and, as shown, between the face of the valve and the face of the wall D is a gasket *c* to insure a tight closing of the valve and escape of the gas, and this gasket has therein an opening corresponding to and in line with the opening *f* in the wall D. The valve F is forced and held firmly to its seat by the pressure of the gas; but in order to insure the seating of the valve under all circumstances a coiled spring *d* is located between the valve F and the plug E', one end of the spring encircling the hub or center *e'* of the valve and the other end entering a recess *d'* in the plug E'.

G is a stem inserted in the wall D and having at its inner end a square portion *g*, fitting the square opening *g'* and connecting the valve to the stem, so that with the turning of the stem G the valve will be turned, and, as shown, the stem G is held against outward movement by a flange *g''* on the stem G.

H is a bar having at its outer end a handle H' and attached at its inner end firmly to the stem G, by means of which bar and handle the stem can be turned.

I is a cap or cover for closing the mouth of the opening *f*, which cap or cover has an ear *i'*, receiving a screw *h'*, the body of which passes through a slot *h* in the bar H, so that by loosening the screw *h'* the cap or cover I can be adjusted on the bar H, so as to fit against the face of the wall D and tightly close the mouth of the opening *f* against the admission of dust, dirt, and insects, and, as shown, the limit of the movement of the cap or cover I in closing the mouth of the opening *f* is had by a stop *i* on the wall D, as shown in Fig. 2.

The valve is located in the body or stem of the cock by inserting the stem G in the hole therefor in the wall D, then placing the gasket *c* for use around the projecting inner end of the stem and against the face of the wall D in the chamber E, then slipping the valve F on the end *g* of the stem G in the chamber E,

then placing the spring *d* in position around the hub or center *e'*, and closing the chamber E by inserting the plug E', and the valve is completed ready for use by attaching the bar H, with the handle H', onto the outer end of the stem G, and when the bar H is attached the cap or cover I is placed in position on the bar H and adjusted on the bar, so as to properly coact with the face of the wall D, and then locked by the screw *h'*.

The operation is as follows: The end A is forced or driven into the barrel or other receptacle with which the cock is to be used by striking blows on the driving-head C, and when inserted the cock is ready for use, and in use to draw the beer or other fluid the handle H' is raised, raising the bar H and turning the stem G, which turns the valve F, and when the bar H strikes the driving-head C the opening *e* in the valve F will have been carried around to be in line with the opening *f*, and at the same time the cap or cover I is carried, with the bar H, from beneath the mouth of the opening *f*, which brings the parts into position for the beer to pass through the opening *a* into the chamber E, and thence through the port *e* into the passage or opening *f* to be discharged therefrom, and when the required quantity has been drawn the handle H is turned down, carrying with it the bar H, reversing the rotation of the stem G, and carrying the valve F around with the stem for the port *e* to pass out of communication with the opening or passage *f*, and at the same time the cap or cover I is carried down to close the opening or passage *f*, when the bar H is in its down position, and the limit of movement in this direction is had by the edge of the cap or cover I striking the stop *i*. It will be seen that the movement of the valve to open communication with the passage or opening *f* and the movement of the cap or cover to uncloze the mouth of the passage or opening *f* are in unison, and when the port *e* is in communication with the opening or passage *f* the cap or cover I is entirely away from the mouth of the opening or passage *f*, and by having the bar H engage the driving-head C when the port *e* is in communication with the opening or passage *f* the operator knows that communication is established, and by having the stop *i* engage the edge of the cap or cover I a positive stop for the cap or cover beneath the mouth of the opening or passage *f* is had for closing such mouth or passage. The travel of the port *e* in relation to the opening or passage *f* and to the travel of the cap or cover I is one by which the port *e* will pass out of line with the opening or passage *f* before the cap or cover I comes into position to close the opening or passage *f*, and by this means the valve E closes the opening or passage *f* against discharge before the opening or passage *f* is closed by the cap or cover, thereby allowing the opening or passage *f* to drip and become clear of the beer before it is closed by the cap or cover.

The cap or cover I prevents when underneath the mouth of the opening or passage *f* the entrance of dirt, dust, or insects into such passage, and such cap or cover is brought into position to perform its office with the movement of the valve F in shutting off communication through the port *e*, so that with the closing or shutting off of communication through the valve F the cap or cover is brought into position to shut off or close up the mouth of the opening or passage *f*.

The lining of the passage *a* in the stem of the cock with tin prevents gas from affecting the stem when made of brass or other material, and thereby injuring the beer, and as a further preventive against the action of gas the interior of the chamber E can be lined with tin and the valve F be made wholly of tin or faced with tin and the spring *d* covered with tin, and in actual use the acting face of the valve can be made to seat direct against the face of the wall D, thereby dispensing with the gasket *c* but by using the gasket less care is required in fitting the acting faces.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a beer-cock, of a valve-chamber having on one end a seating-face for a valve, a discharge-passage at the lower side of the valve-chamber, a disk valve in the valve-chamber seating against the face of the chamber and controlling the discharge-passage, an outside cap or cover traveling in the arc of a circle and turning with the valve, opening and closing the mouth of the discharge-passage, and a port in the valve traveling in the arc of a circle, opening and closing the discharge-passage, said port and the cap or cover both having the same limit of travel on opposite sides of a common center on which they turn, the limit of down travel of the port opening the discharge-passage with the cap or cover at the limit of its up travel and the commencement of the down travel of the cap or cover carrying the port immediately away from the discharge-passage, giving the cap or cover the travel from the limit of its upward travel down before closing the mouth of the discharge, thereby escaping the drip after the port is closed, substantially as and for the purposes specified.

2. The combination, in a beer-cock, of a wall, a valve-chamber in the wall having on one end a valve-seating face, a discharge-passage from the lower side of the valve-chamber, a disk valve in the valve-chamber seating against the end face of the chamber, a port in the valve traveling in the arc of a circle and establishing communication between the valve-chamber and the discharge-passage at the limit of its down travel, a stem carrying the valve, a bar operating the stem, and a cap or cover on the bar traveling in the arc of a circle over a coacting face of the wall around the mouth of the discharge-passage, opening and closing such mouth, the valve

and cap or cover both turning with the valve-stem, and the valve-port and the cap or cover standing on opposite sides of the valve-stem and having a reverse travel to each other in turning, one traveling away from as the other approaches the discharge-passage, closing the discharge-passage to the port and giving the cap or cover a travel from its upward limit down before closing the mouth of the discharge, whereby the drip is all escaped before the cap closes the discharge-passage against dust, dirt, and insects, substantially as specified.

3. The combination, with a discharge-passage, of a disk valve having a face closing such passage, a port in the valve opening the discharge-passage and traveling in the arc of a circle, a stem carrying the valve, an outside cap or cover traveling in the arc of a circle, closing the mouth of the discharge-passage against dust, dirt, and insects, carried by the stem and located on the opposite side of the stem to the port, giving the closing-face of the valve immediate action at the commencement of the return of the cap or

cover to close the mouth of the discharge-passage, thereby shutting off the discharge and escaping the drip during the return travel of the cap or cover, substantially as specified.

4. The combination, in a beer-cock, of the stem A B, elongated driving-head C, wall D, depending from the stem A B, chamber E in the wall D, disk valve F in the chamber E and having the port *e*, discharge-passage *f* from the chamber E, stem G, carrying the valve F, bar H, turning the stem G, cap or cover I, attached to the bar H and projecting beneath the mouth of the discharge *f* when the port *e* is at the top of the chamber E, the port *e*, and the cap or cover I, traveling in opposite directions in the turning of the stem G, and stop *i*, limiting with the driving-head C the turning of the stem G in either direction, substantially as and for the purposes specified.

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Witnesses:

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