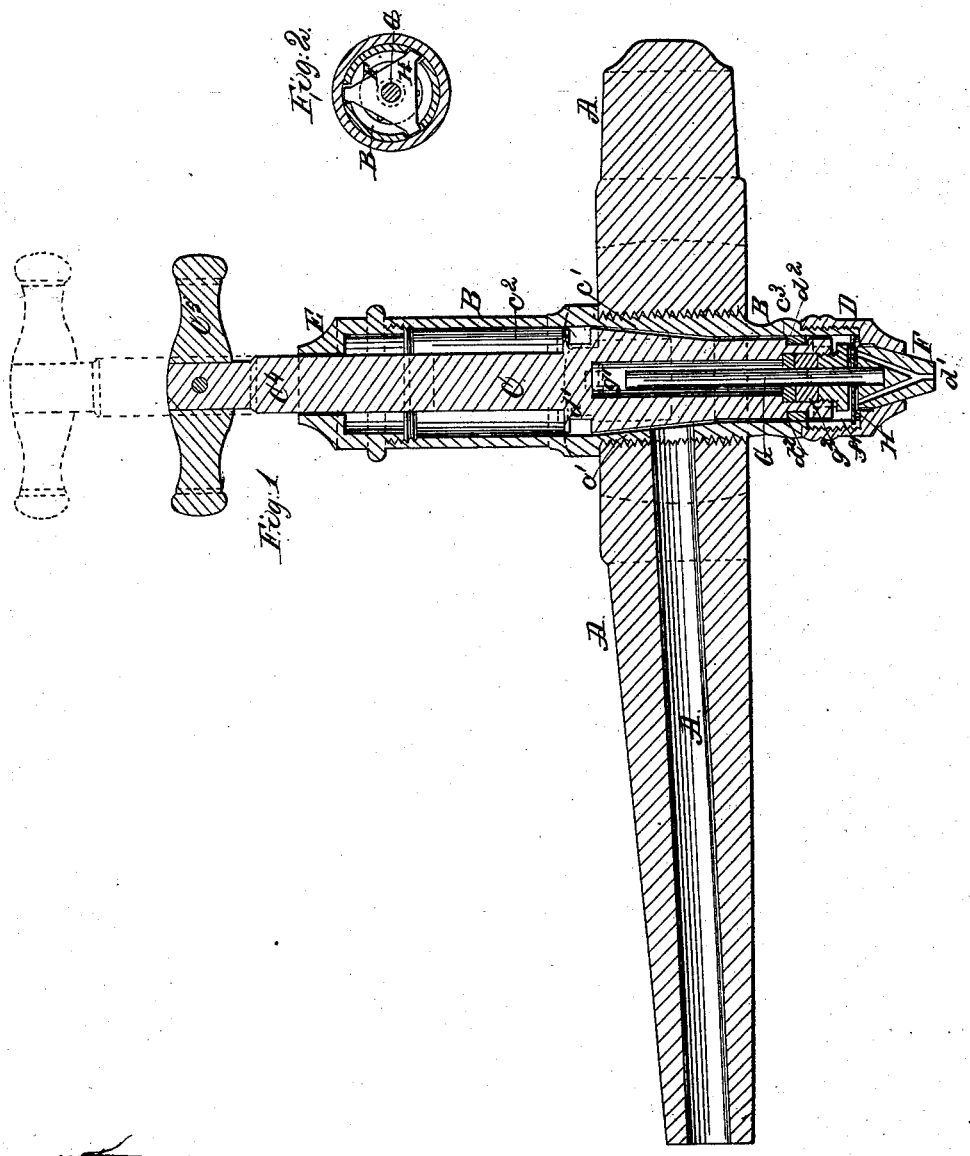
J. Miller,

Faucet,

No. 47,442. Patented Apr. 25, 1865



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JOHN MILLER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN BEER-FAUCETS.

Specification forming part of Letters Patent No. **47,442**, dated April 25, 1865.

To all whom it may concern:

Be it known that I, JOHN MILLER, of the city of Buffalo, county of Erie, and State of New York, have invented a new and Improved Faucet; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I is a vertical section of my improved faucet, and Fig. II is a cross-section through the nozzle of the same.

This invention relates to that class of faucets used for drawing liquors from casks in small quantities, and is especially adapted to the drawing of malt liquors—such as beers, ales, &c.—which deteriorate from the exposure to air, necessary to permit their free flow from the cask.

The nature of the invention consists in the arrangement and combination of parts for ejecting with great force a small stream of the liquor being drawn into the receiving-glass, for the purpose of foaming and giving renewed life and sprightliness to the same.

Letters of like name and kind refer to like parts in each of the figures.

A represents the stem or plug of the faucet, which is made of wood in the form of the same part in the common wooden faucets.

B is a brass cylinder for the reception of the valve-plunger and operating parts of the faucet. It is screwed through the stem A at right angles thereto, and projects above and below, as represented, the stem being thickened or enlarged in diameter for this purpose. The bore of the stem A is extended through the side of the cylinder B, which permits the flow of the liquor through the stem into the cylinder.

C represents the plunger working in the cylinder, the downward motion of which closes the opening from the stem into the cylinder and shuts off the flow of the liquor, the upward motion of same unclosing said opening and permitting the flow of the liquor through the faucet.

The bore of the cylinder B consists of two cylindrical parts, c^2 c^3, of unequal diameters, the smaller being below the bore of the stem and the larger above. These cylindrical parts are connected by an inverted conical part, c', which forms a seat for the plunger, the figure of which is made to correspond to the bore of the cylinder B, as described.

The plunger being down, its conical part fits tightly into the seat c' and prevents the flow of the liquor. As a further precaution against leakage, the straight parts of the plunger above and below are provided with packing, d' d^2, wound in grooves turned in the plunger for that purpose.

In the upward movement of the plunger the flow of the liquor through the faucet begins as soon as the lower end of the plunger passes the bore of the stem, and is shut off at the same time in its downward movement.

D represents a nozzle screwed upon the lower end of the cylinder B, through which the liquor issues.

E represents a cap screwed onto the upper end of the cylinder, through which the plunger-rod c^4 works.

C^5 represents the handle on the end of the plunger-rod, by which movement is given thereto.

The above describes the construction and operation of the faucet proper. The operation of and combination with the faucet of the ejector for foaming the liquor drawn through the faucet is described as follows:

F is a compound conical valve and nozzle, which has its seat in the discharge-nozzle D of the faucet, the opening of which it is designed to close at proper times. Three or more small holes are drilled through the valve, meeting in one common point at d'. It is through this small hole d' that the foaming ejection is produced.

G represents the stem of the valve-nozzle, which extends upward into a chamber, g', bored into the plunger C. The valve is connected by a loose joint to the stem, so that it will at all times seat itself fairly. This chamber is provided with a stuffing-box and gland, g^2, by which the movement of the stem G therein is made air-tight, and so that the friction of the stem therein will be sufficient to cause the valve nozzle and stem to move with the plunger C, except when said motion of the valve-nozzle is resisted otherwise than by its weight.

H represents a triangular stop loose upon the stem G, the angles of the stop fitting into vertical grooves or slots made in the lower end of the cylinder B. (See Fig. II.)

The operation of this device for foaming the liquor drawn through the faucet is as follows: The upward movement of the plunger C uncloses the bore of the stem, as before described, and allows the liquor to flow through the faucet into the receiving-glass. It also carries with it the valve-nozzle F until the triangular stop H strikes the ends of its guiding-slots in the cylinder B, when the motion of the valve-nozzle is stopped, the continued motion of the plunger being allowed by the movement of the valve-stem G through the stuffing box g'. The receiving-glass being filled, or nearly so, the first part of the downward movement of the plunger will cause the valve-nozzle to seat itself and shut off the flow of the liquor through the discharge-nozzle D before the flow through the main stem is shut off, thus causing the chamber above the valve-nozzle and below the plunger to be filled with liquor, which can escape only by passing out through the small hole d' in the valve-nozzle, so that the further downward movement of the plunger must necessarily eject with great force the liquor in the chamber into the receiving-glass, the effect of this injection into the liquor already in the receiving glass or vessel being, as is well known, to foam the same and give it sprightliness and flavor, especially where the same has become insipid by exposure to the air.

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

The combination, with the plunger C, of the valve-nozzle F and discharge-nozzle D, operating for the purposes and in the manner described.

JOHN MILLER.

Witnesses:

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