No. 649,641. Patented May 15, 1900.

W. KUMMER.

RECIPROCATING VALVE.

(Application filed Sept. 29, 1899.)

(No Model.)

Fig. 1.

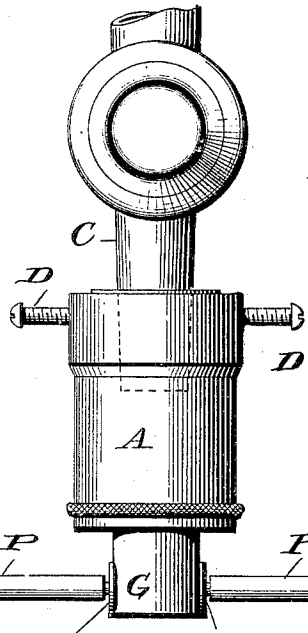


Fig. 2.

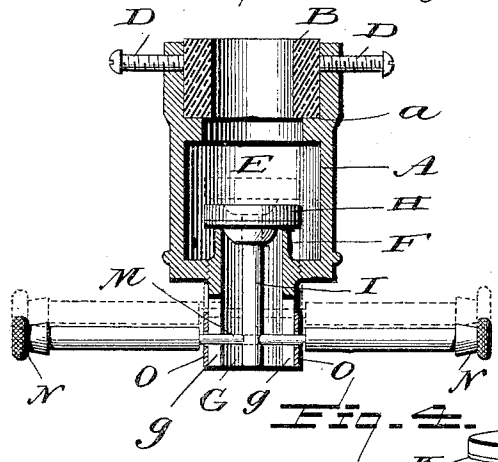


Fig. 3.

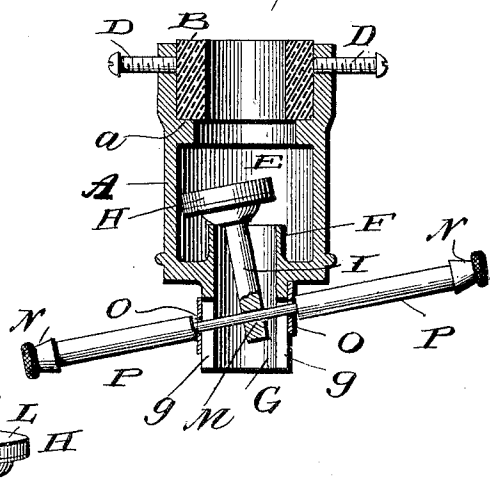
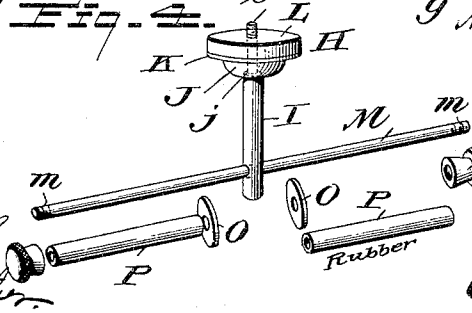


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM KUMMER, OF EASTON, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ISIDOR STERN, OF SAME PLACE.

RECIPROCATING VALVE.

SPECIFICATION forming part of Letters Patent No. 649,641, dated May 15, 1900.

Application filed September 29, 1899. Serial No. 732,112. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KUMMER, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Reciprocating Valves; and I do hereby 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 certain new and useful improvements in reciprocating valves, and pertains more particularly to that class of devices designed for attachments to faucets and adapted to be opened through the agency of a tumbler or other receptacle presented to the same to receive liquid therefrom.

The present invention has for its object, among others, to improve upon this class of devices, to simplify the construction, and to provide for the more rapid manipulation of the same, as well as to permit of the drawing of the beer or other liquid with more or less foam, as may be desired.

The invention is applicable for use in connection with beer-faucets, soda-water apparatus, and other like devices with which it is desired to automatically dispense the liquid by the use of but one hand.

I provide the valve-stem with a cross portion so mounted as to serve to unseat the valve by upward pressure thereupon whether this pressure be in a direct vertical direction or otherwise. Thus if the glass or other receptacle is so placed as to engage with only one end of the said cross portion the same will be tilted, but yet move the valve from its seat. This freedom of movement has another function. It serves to throw the stem of the valve crosswise, as it were, of the passage through the attachment, so as to intercept the flow of the liquid, and thus put a bead on the same or cause it to foam. The presence of the cross portion in the passageway of the device will produce more or less foam on the beer; but the tilting of the same will serve to produce foam in a much greater quantity.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation showing the application of my invention. Fig. 2 is a substantially-central vertical section through the same. Fig. 3 is a view similar to Fig. 2, showing the actuating portion tilted. Fig. 4 shows in detail perspective the valve and its accessories, some of which are shown as detached therefrom.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the body portion of the device, formed at its larger end with a socket and a shoulder *a*, within which socket and against which shoulder is designed to be placed a bushing B, of rubber or analogous material, which bushing or gasket is designed to fit snugly therein and is designed to have a bore of a diameter which will cause it to snugly hug the depending portion C of a faucet through which the liquid is to be drawn. As a precautionary measure I sometimes provide the screws or analogous devices D, which may be employed to more securely bind the attachment in position upon the faucet or other device upon which it is placed.

Within the chamber E of the body portion A is a valve-seat F, which in some instances may be detachably and adjustably secured in place therein, as indicated in Fig. 2. Depending from the lower end of this chamber E is the extension G, through which the liquid flows when the valve is unseated. This extension is provided with diametrically oppositely disposed vertical or longitudinal slots *g* for a purpose soon to be described.

H is the valve. It is adapted to the seat F, and its construction is best seen in Fig. 4, in which it will be seen that its stem I is screw-threaded, as at *i*, and has a tapered portion J seated upon a shoulder *j* of the stem, and upon this tapered portion rests a washer K,

and upon this the plate L. Adjustment is thus provided in case of wear, and the parts of the valve may be disassembled when necessary.

M is a rod passed loosely through an opening in the lower portion of the valve-stem, so as to move endwise therein when necessary. Its ends are screw-threaded, as seen at *m*, to receive the knobs N, and upon this rod, between these knobs and the adjacent wall of the extension G or washers (or the like) O, loose upon said rod, I place the sleeve or covering P, of rubber or analogous material, which serves to prevent chipping or breakage of the glass by contact with the rod in the actuation of the valve.

In practice the valve is placed in position, and then the rod M is passed through the opening in the valve-stem, the collars or washers O placed on the rod, then the sleeves or protectors P, and then the knobs are screwed onto the ends of the rod, the rod working in the slots *g* of the extension, as shown. Normally the valve is held to its seat, so as to prevent the flow of the liquid by the pressure of the liquid and the weight of the valve. The rod is then of course in its lowermost position. When a glass or other receptacle is placed beneath the rod, it will press upward thereupon and unseat the valve and allow the liquid to flow into the said receptacle. If the pressure is directly upward, as indicated in Fig. 2, the valve will be raised vertically and the stem will offer practically no resistance to the flow of the liquid; but if the rod is engaged upon one side either accidentally or intentionally the valve will be thrown from its seat in an angular position, as indicated by Fig. 3, and the stem thus obstructs in a measure the flow of the liquid and serves to break it up into spray, and thus put a bead or foam on the beer. When in its inclined position, as seen in Fig. 3, the valve itself obstructs the free flow of the liquid, and thus aids to some extent in causing the same to be foamed. The body portion may assume any desired shape, and the device as a whole may be made as fanciful in appearance as may be desired.

The attachment is readily applied to any form of delivery device, is positive and reliable in its action, not liable to get out of order, and affords a simple means of dispensing liquids with ease and rapidity by the use of one hand only.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is—

1. In an attachment of the character described, a body portion with valve-seat, a gravitating valve, and means passing through the stem of said valve for unseating the same, said means being capable of movement in a plane angular to the axial line through said body portion, as and for the purpose specified.

2. In an attachment of the character described, a body portion with valve-seat, a gravitating valve, its stem, and a rod passing through the stem and disposed substantially at right angles to the same and tiltable to throw the valve in a plane out of the perpendicular, as set forth.

3. In an attachment of the character described, a body portion with valve-seat and extension with vertical slots, a valve fitted to said seat, and a cross-rod passing through the stem of the valve and movable through the slots of the extension, as set forth.

4. In an attachment of the character described comprising a body portion with chamber and valve-seat, a gravitating valve and actuating means attached thereto and bodily movable therewith and adapted to serve as a means for causing the liquid to foam, as set forth.

5. The combination with the body portion with slotted extension, of the valve, its stem, and a rod passed loosely through an opening in the stem and working in said slots, as set forth.

6. The combination with the body portion with slotted extension, of the gravitating valve fitted to a seat therein, a valve-stem working in said extension, a cross-rod passed loosely through said stem, and yielding protectors on said rod upon opposite sides of the extension, as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM KUMMER.

Witnesses:
H. D. MAXWELL,
ISIDOR STERN.