

H. BLUM.
GLASS RINSER.
APPLICATION FILED OCT. 1, 1908.

927,320.

Patented July 6, 1909.

2 SHEETS—SHEET 1.

FIG. 1.

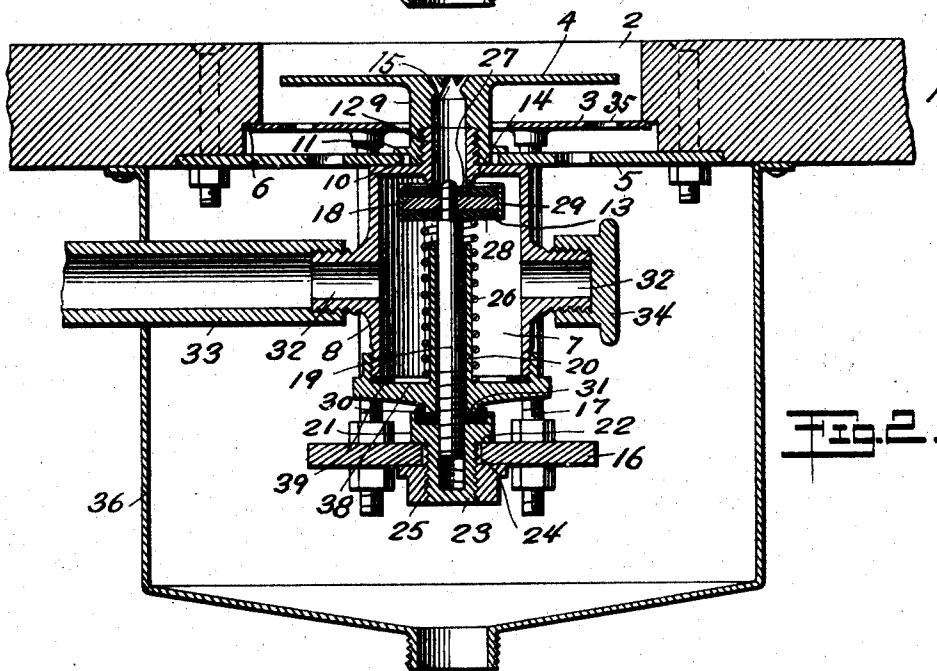
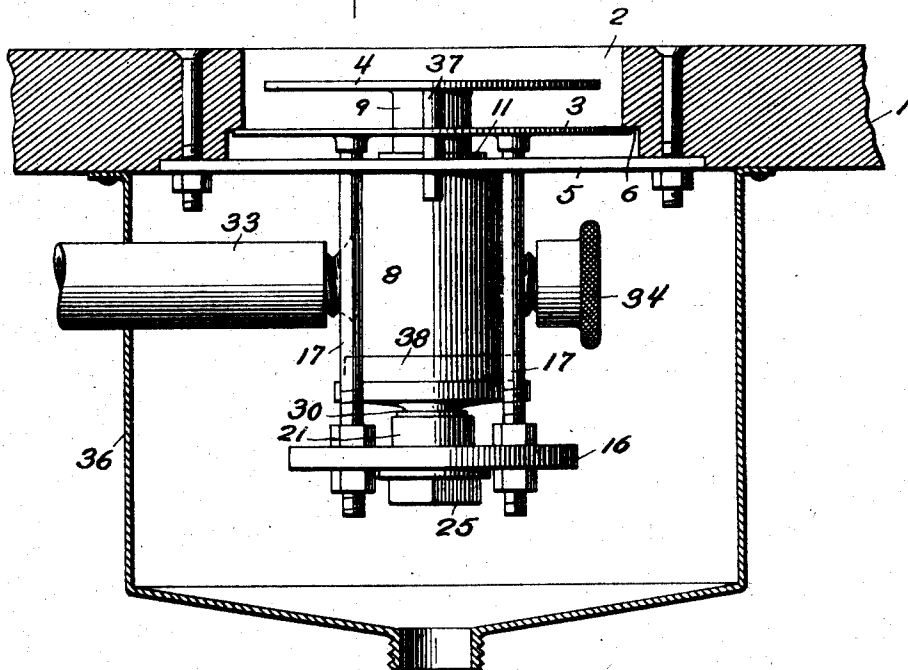


FIG. 2.

Witnesses:
G. Robert Thomas
J. W. Manker

Inventor
Henry Blum
By his Attorney
J. B. Sandenbury

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2 SHEETS—SHEET 2.

FIG. 3.

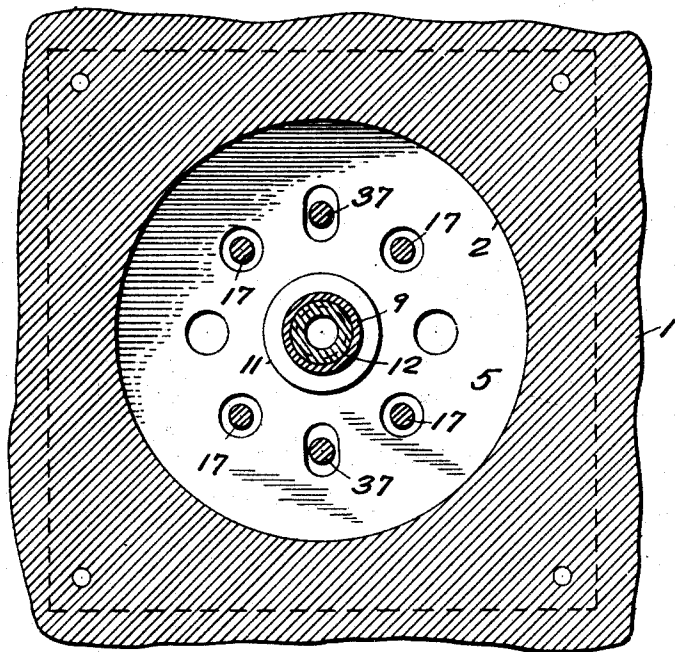


FIG. 4.

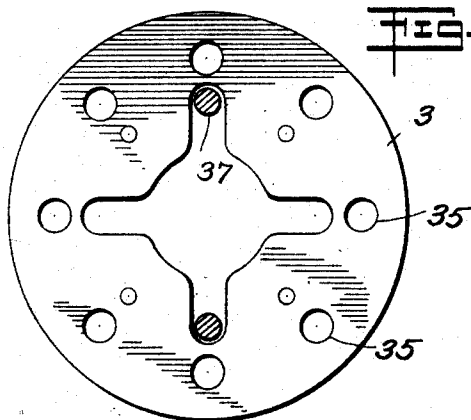


FIG. 5.

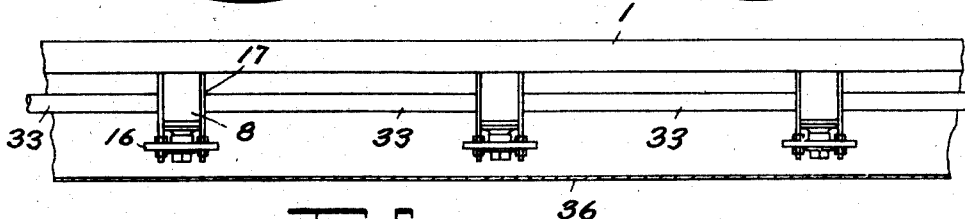
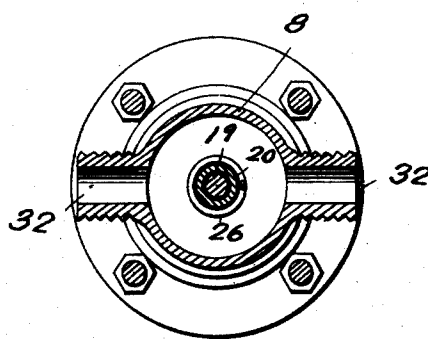


FIG. 6.

Witnesses:
G. Robert Thomas
J. W. Baker

Inventor
Henry Blum
By his Attorney
J. W. Baker

UNITED STATES PATENT OFFICE.

HENRY BLUM, OF NEW YORK, N. Y.

GLASS-RINSER.

No. 927,320.

Specification of Letters Patent.

Patented July 6, 1909.

Application filed October 1, 1908. Serial No. 455,609.

To all whom it may concern:

Be it known that I, HENRY BLUM, a citizen of the United States of America, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Glass-Rinsers, of which the following is a specification.

This invention relates to glass-rinsing means, adapted for use, for example, in connection with coin-controlled beverage-dispensing machines, but also capable of much wider use.

The subject-matter of the invention consists in improvements upon the type of glass-washing device in which the pressure of the inverted glass upon an operating member starts the flow of the rinsing water.

The objects are to simplify and strengthen the construction of such devices, and to guard against leakage.

It will be sufficient here to say, before passing to the body of the specification, that the invention consists in the constructions and combinations illustrated and described, together with their equivalents, as covered by the appended claims and determined by the state of the art.

In the drawings, Figure 1 is a side elevation of device, the waste-water casing being in section; Fig. 2 is a corresponding vertical section; Fig. 3 is a horizontal section taken between the member 3 and the plate 5; Fig. 4 is a plan view of the operating member or plate; Fig. 5 is a horizontal section through the valve casing; and Fig. 6 is a side view, being somewhat diagrammatic, of three of the devices connected in series, the common waste casing being shown in section.

Referring now to these views, the numeral 1 indicates a table top or any other suitable support, which may be recessed as at 2. Within this recess, which in practice will be circular in plan, as is well understood, is the operating member or plate or disk 3, which is actuated by the downward pressure thereon of the rim of an inverted glass. Also located in the recess 2 and above the member 3, may be the guard plate or disk 4, which, as is well understood, is of a diameter to be received within the inverted glass, and serves both to guard against the member 3 being actuated except by a glass in the proper way and to center the glass during such operation. The annular space between the edge of the plate 4 and the wall of the recess 2 is, of course, cal-

culated just to permit the passage of the glass-rim. The recess 2 may be formed completely through the table top 1 and may have a bottom formed by a plate 5 secured to the under side of the table top.

So far I have not pointed out anything novel with the present invention; but I may here call attention to a feature which is novel and of value, but upon which the other novel features of the invention are not dependent. I refer to the location of the operating member 3 beneath an overhang in the recess 2. This construction guards against chipping of the rim of the glass by coming in contact with the edge of the member 3 and also serves to keep foreign objects from falling through the annular space between the periphery of the plate 4 and the sides of the recess 2 onto the bottom of the latter.

The valve chamber 7 may be, and preferably is, formed in an independent casing 8, situated below the table top 1 and beneath the recess 2. A desirable mode of holding this casing 8 rigidly in place employs the following details of construction: The guard plate 4 is provided beneath with a tubular stem 9 received at its lower end in a central opening 10 in the plate 5 and having an annular shoulder 11 bearing upon the upper surface of said plate. This stem 9 is internally threaded to receive an externally-threaded tubular projection or nipple 12 projecting upward from the casing 8; with the result that the plate 5 may be clamped between the shoulder 11 and the top of the casing 8, whereby said casing is held rigidly in place.

I regard the novelty of the foregoing features as residing in the rigid connection of the guard plate 4 and the valve chamber 8 by a tubular neck or stem as 9, about which latter stands the operating member 3, and in the manner of mounting the parts by clamping the plate 5, or "base", between the stem 9 and the valve casing 8. Another, though rather minor, feature of novelty, is the provision of studs 37 depending from the guard plate 4 and passing through apertures in the operating member 3 and the plate 5, as shown in Figs. 4 and 3 particularly, whereby malicious unscrewing of the guard plate 4 is prevented. These studs 37 constitute in effect locking members or devices.

The bottom of the valve casing 8 may be in the form of a screw cap 38, between which

and the lower edge of the casing wall may be a packing washer 39; but these are non-essential details.

13 is a valve within the casing 8, normally closed upon a seat 14 at the base of the nipple 12, thus controlling the flow of water through the nipple 12 and stem 9 to and through customary apertures 15 in the guard plate 4. The preferable form of connection between the operating member 3 and this valve 13 is as follows: Depending from operating member 3 and passing through apertures in the plate 5 are four, more or less, rods 17, which are secured at their lower ends to an intermediate member or plate 16, underlying the valve casing 8. This intermediate member 16 is connected with the valve 13 as follows: Depending from the valve disk 18 is the valve stem 19, which passes through a sleeve 20 preferably formed integral with and projecting upward from the bottom of casing 8, and is threaded at its lower end, beneath the casing, into the clamping member 21. This member 21 has the flange or shoulder 22 bearing upon the top of member 16 and a reduced, externally-threaded portion 23 passing through an opening 24 in the member 16 and engaged by a clamping nut 25 on the underside of the member 16. Thus, the depression of the operating member 3 depresses, also, the intermediate member 16, and this, in turn, pulls the valve 13 away from its seat. The parts are automatically returned to normal position, upon the removal of the pressure of the glass, by means of a spring 26, conveniently disposed in a cylindrical spiral between the valve 13 and the bottom of the casing 8.

Among the important features of the invention are the features designed to prevent leakage. It will be noted that the valve disk 18 is provided not only above with a washer 27 but also below with a washer 28. Washer 27 may be clamped in place by an annular flange on a ring 29 threaded to the periphery of the disk 18, and the washer 28 may be held by the internal threads of this ring and also by being clamped between the disk 18 and the shoulder formed on the valve stem 19 toward its upper end. Also, it will be noted that the clamping member 21 carries at its upper end, preferably within a recess formed therein, a washer 30. Now, when the valve 13 is seated, the washer 30 is seated against the lower end of the casing 8 around the valve stem 19, thus preventing leakage at this region. A pseudo valve seat 31 may be formed on the underside of the base of the casing 8 for better cooperation with the washer 30. When the valve 13 is unseated, and the washer 30 consequently carried away from its seat, the washer 28 seats almost instantly upon the top of the sleeve 20, thus preventing leakage around the valve stem.

By the foregoing construction it will be seen that I dispense with troublesome glands and the like. Non-essentials aside, I regard it as new in a glass-rinser to mount upon the valve stem, in addition to the valve proper, opposed valve surfaces which cooperate with respective seats to prevent leakage about the valve stem, whether the valve proper be seated or unseated.

Preferably, though not necessarily, the inlet to the valve chamber is lateral, the valve casing 8 being provided with opposed lateral nipples 32. In this way, a plurality of valve chambers may be connected in series with a suitable source of supply by means of pipes 33. One of the nipples of the last chamber may be closed, as by cap 34.

The waste water may be disposed of by allowing it to run through holes 35 in the operating member 3 and through the various holes in the plate 5 indicated in Fig. 3, whence it may pass into a waste-water casing 36, inclosing the valve casing 8 and other parts. As indicated in Fig. 6, this waste-water casing may be common to the series of valve casings 8.

What I claim as new is:

1. In a glass-rinsing device, having glass-actuated operating means and a valve operated thereby, the combination of a valve chamber having its outlet through the top controlled by said valve, a guard plate located above said valve chamber and having a discharge aperture, and a tubular stem rigidly connecting said valve chamber and said guard plate and affording communication between said outlet and said discharge aperture.

2. In a glass-rinsing device, the combination of a valve chamber having its outlet through the top, a valve therein controlling said outlet, a guard plate having a discharge aperture, said guard plate being located above said valve chamber and being adapted to be received within an inverted glass, a tubular stem rigidly connecting said valve chamber and said guard plate and affording communication between said outlet and said discharge aperture, a vertically movable operating member disposed about said stem and adapted to be engaged by the rim of the inverted glass, rods depending from said operating member, an intermediate operating member disposed below said valve chamber and connected with the lower parts of said rods, and a valve stem connected with said intermediate operating member and passing upward through the bottom of the valve chamber to said valve, together with a spring for holding said valve normally seated.

3. In a glass-rinsing device, having glass-actuated operating means and a valve operated thereby, the combination of a supporting base, a valve chamber located below said base and having its outlet through the top

controlled by said valve, and a guard plate above said base having a discharge aperture and a depending tubular stem affording communication between said outlet and said discharge aperture, said stem and valve chamber having threaded connection whereby said supporting base is clamped between them.

4. In a glass-rinsing device, the combination with a valve chamber having its outlet adapted to direct the discharge against the interior of an inverted glass thereover, a valve within said valve chamber controlling said outlet and having a valve stem extending downward through the bottom of the valve chamber, operating means adapted to be actuated by the rim of the inverted glass, and connection between said means and the lower part of said valve stem; of an upward facing valve surface carried by said valve stem below the valve chamber and adapted to engage with the bottom surface of the latter when the valve is seated to prevent leakage around the valve stem, and a downward facing valve surface carried by the valve stem within the valve chamber adapted to prevent leakage when the valve is unseated.

5. In a glass-rinsing device, the combination with a valve chamber having its outlet adapted to direct the discharge against the interior of an inverted glass thereover, a valve within the valve chamber controlling said outlet and having a valve stem extending downward through the bottom of the valve chamber, operating means adapted to be actuated by the rim of the inverted glass, and connection between said means and the lower part of said valve stem; of a water-tight sleeve extending upward from the bottom of

the valve chamber about the valve stem, and opposed valve surfaces carried by said valve stem below and within said valve chamber and adapted to engage with the bottom surface of said valve chamber and the top of said sleeve to prevent leakage around the valve stem when the valve is seated and unseated, respectively.

6. In a glass-rinsing device, the combination of a table-top having a recess which is enlarged toward the base, a guard plate disposed within said recess, means for directing a discharge of water through said guard plate against the interior of a glass inverted thereover, valve mechanism for controlling such discharge, and an operating plate below said guard plate and beneath the overhang of the enlargement of the recess, connected with said valve mechanism.

7. In a glass-rinsing device, having glass-actuated operating means and a valve operated thereby, the combination of a supporting base, a valve chamber located below said base and having its outlet through the top controlled by said valve, a guard plate above said base having a discharge aperture and a depending tubular stem affording communication between said outlet and said discharge aperture, said stem and valve chamber having threaded connection whereby said supporting base is clamped between them, and locking devices depending from said guard plate.

Signed at New York, N. Y. this 28 day of Sept. 1908.

HENRY BLUM.

Witnesses:

J. Z. BRANDENBURG,
FREDERICK C. BONNY.