Jan. 16, 1923. 1,442,140.

W. E. FIELD.

DRINKING GLASS FILLER FIXTURE.

FILED SEPT. 12, 1921.

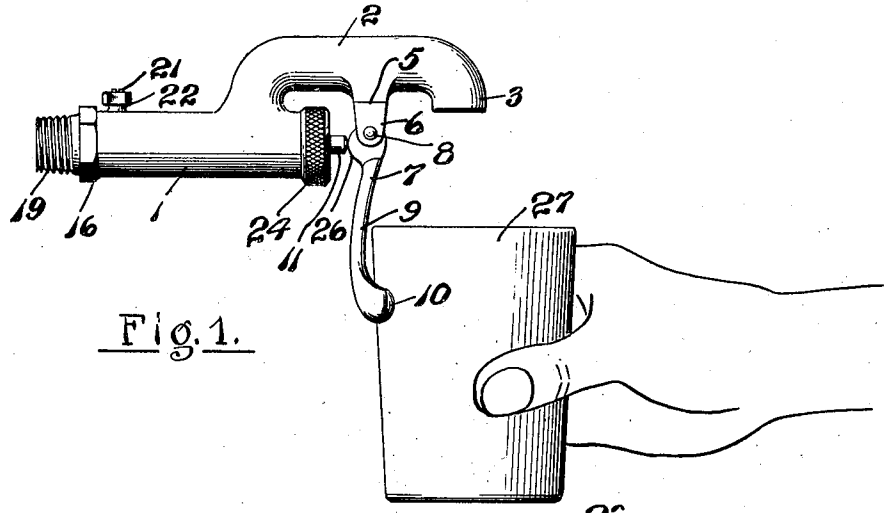


Fig. 1.

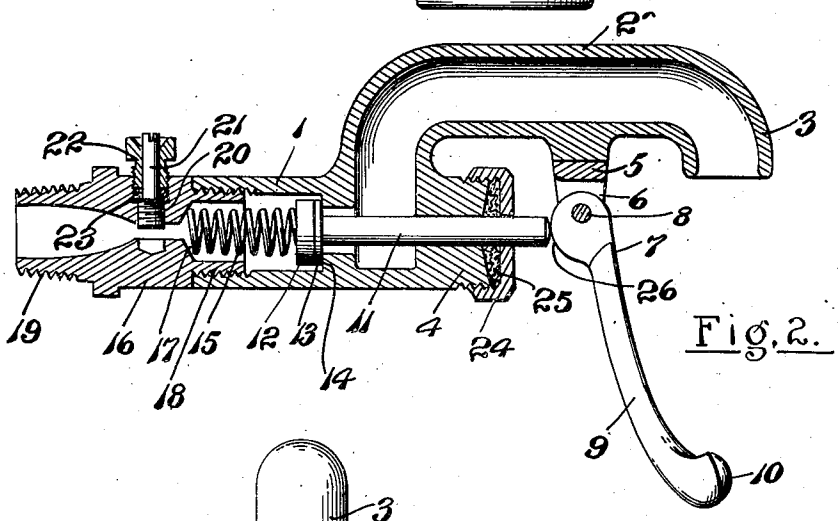


Fig. 2.

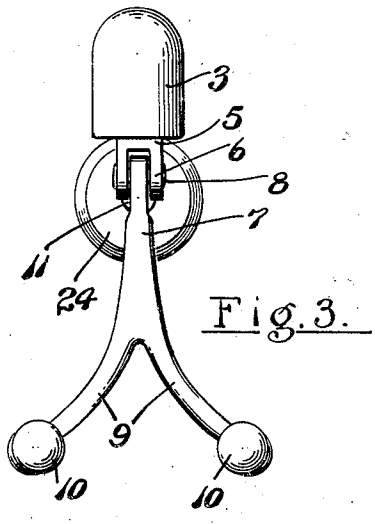


Fig. 3.

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UNITED STATES PATENT OFFICE.

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DRINKING-GLASS-FILLER FIXTURE.

Application filed September 12, 1921. Serial No. 499,895.

To all whom it may concern:

Be it known that I, WILLIS E. FIELD, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Drinking-Glass-Filler Fixtures; 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 an automatically operated fixture for use in filling drinking glasses, being particularly useful in restaurants where the patrons thereof serve themselves though, of course, not limited in use thereto. It is a primary object and purpose of the present invention to provide a fixture of this character, simple in structure and economical to manufacture, very easily operated, and one which permits a very full flow of water without undue splashing when operated, whereby the glasses may be rapidly filled, speed being especially desirable during rush hours in restaurants. A further object of the invention is to produce a device of this character which is clean and sanitary in its use. These, together with various other objects and purposes, not specifically stated at this time, will appear fully and in detail as understanding of the invention is had from the following description, taken in connection with the accompanying drawing, in which,

Fig. 1 is a side elevation of the device, showing the operation thereof by means of pressure of the side of a glass to be filled.

Fig. 2 is an enlarged central vertical section through the device, and

Fig. 3 is a front elevation thereof.

Like reference characters refer to like parts in the different figures of the drawing.

In the construction, a horizontally disposed tubular body 1 has an upper forwardly extending integrally cast hollow outlet member 2 terminating at its front free end in a downturned nozzle 3, as shown. There is a continuous passage through body 1 and member 2 and the outlet member parallels the body 1 being located but a short distance above it. The body extends a short distance under the outlet member, as indicated at 4. A boss projects downwardly from the outlet 2 at the under side and intermediate the ends thereof to which a block 5 is secured, by swedging or otherwise, said block having two spaced apart ears 6 depending therefrom to a point in front of the projecting end 4 of said body.

An operating member 7 is pivotally connected at its upper end to and between the ears, a pivot pin 8 passing through the ears and the member. At its lower portion, member 7 is divided and extended into two diverging arms 9, each at its lower end being equipped with a rubber contact head 10, as shown. The member 7 with arms 9 approximates the form of a wish-bone and it is designed that the glass to be filled by placing under the nozzle 3 shall bear against the heads 10 without coming in contact otherwise with the operatng member.

A valve pin 11 is located horizontally in the front portion of the body 1, projecting at its front end in front of the end 4 thereof. At its inner end it is formed with a head 12 in front of which a disk 13 of suitable valve material is located which is adapted to be pressed against the shoulder 14 within the body 1, closing off the passage for the water. Ordinarily the pressure of water is sufficient to cause the valve to be firmly seated, but as an insurance to that end, a coiled spring under compression is placed back of the head 12 serving to hold the same in forward position at all times, normally, thereby stopping any passage of water.

The rear end of the spring seats in a socket in a coupling 16 formed with socket 17 to receive the spring and with an exteriorly threaded projection at its front end, indicated at 18, for screwing into the rear end of the body 1 which is interiorly threaded to receive it. The opposite end is provided with an exteriorly threaded portion 19 of tapered form, preferably, for connection to a suitable tank or other container for water. The coupling has a longitudinal passage therethrough, restricted at one point. At this point, a regulator plug 20 is threaded through the upper side of the coupling, being connected to a stem 21 which extends through a packing nut 22 threaded also into the upper side of the coupling, underneath which is suitable packing 23. The upper end of the stem 21 is formed for the operation thereof by a screw driver and it is evident that the reg-

ulator plug 20 may be very quickly and easily adjusted to different positions to regulate the effective area of the passage for water through the coupling.

The front end 4 of the body is exteriorly threaded for the reception of a cap 24 between which and the body packing 25 is located around the valve pin or rod 11, thereby precluding any leakage of water around the same. The rear side of the upper end portion of the operating member 7 has a cam surface 26, practically eccentric with respect to the axis of pivot pin 8, against which surface the front end of pin 11 bears. It is obvious that backward turning pivotal movement of the operating member about the pin 8 serves to force valve pin 11 rearwardly to unseat the valve at 13 and open the passage for water. It is likewise evident that the force required to operate the operating member is very slight, irrespective how great the pressure of the water against the head 12, due to the great leverage present in the construction. Accordingly when a glass, such as illustrated at 27, Fig. 1, is brought against the lower ends of arms 9 of the operating member, slight pressure of the glass against the heads 10 on said arms opens the passage for water which is immediately delivered to the glass through the outlet member 2 and from its nozzle 3; and as soon as the glass is filled to the required height, the flow of water is automatically stopped on removal of the glass.

The construction is particularly compact and simple, is easily manufactured and assembled, is not liable to get out of order, and if it should, can be very readily taken apart for repair or replacement of parts. The block 5 has to be a separate piece in order that a tool can be applied to the end 4 to thread the same. The flow of water at its maximum is only that which can pass through the restricted passage in the coupling, and this maximum is easily regulated. Moreover, the one having a glass filled can regulate the flow in accordance with the amount the operating member is pressed to the rear. In practice, a very rapid filling of glasses can be had without splashing due to the close positioning of the nozzle 3 to the upper end of the glass. In every way, the construction is particularly practical and effective and has so proved in use.

I claim:

1. A device of the class described, comprising a horizontally disposed valve body and an overhanging outlet member therefor extending in front of the body and terminating in a downwardly turned nozzle, an operating member pivotally suspended from said outlet member, a valve mounted in the body and having a valve pin projecting in front of the body in position to be operated by the operating member, said valve normally closing the passage through the body to the outlet member, and means at the upper end of the operating member for moving the valve pin and valve to the rear to open said passage on pivotal movement of the operating member to the rear, substantially as described.

2. A device of the class described, comprising a horizontally disposed body having a passage therethrough and an integral outlet member having a passage therethrough communicating with the passage in the body, said outlet member extending upwardly a short distance from the body back of the front end thereof, and then extending forward to in front of said body and terminating in a downturned end, a valve mounted in the body and adapted to close the passage therein, a pin associated with the valve and extending forward to in front of the body, an operating member pivotally suspended from the outlet member in front of the pin, and a cam shaped upper end to the operating member against which the valve pin bears, whereby on rearward turning movement of the operating member, the pin is moved to actuate the valve to open the passage through the body, substantially as described.

3. A device of the character described, comprising a horizontally disposed body having an overhanging outlet member, said body and member having connected passages therethrough and said outlet member extending in front of the body, a boss having depending ears extending downwardly from the lower side of the outlet member in front of the body, an operating member pivotally mounted and depending from said ears, said operating member being formed at its rear side and at its upper end with a cam surface, a valve located within the body, a spring back of the valve impelling it forward, to normally close the passage in the body, a pin connected with the valve and extending forward in front of the body to bear at its end against said cam surface of the operating member, said operating member at its lower portion having two diverging outwardly and forwardly curved arms terminating in heads at the lower front sides of said arms, substantially as described.

4. A device of the character described, comprising a horizontally disposed body having an upper overhanging outlet member, said body and member having connected passages therethrough and said outlet member extending horizontally in front of the front end of the body and terminating in a downturned end, a coupling threaded into the rear end of the body, a valve located in the body adapted to close the passage therein, a spring disposed between the cou-

pling and valve normally holding the valve closed, a pin extending from the valve forward through and in front of the body, an operating member pivotally suspended from the outlet member in front of the pin, said member at its upper end being formed with a rear cam surface against which the end of the pin bears, and said member below the pivot being divided to make diverging forwardly curved arms, and a head attached to the lower end and at the front side of each arm, substantially as described.

5. A construction containing the elements in combination defined in claim 4, combined with means to regulate the maximum passage of liquid through the coupling, substantially as described.

In testimony whereof I affix my signature.

WILLIS E. FIELD.