Aug. 22, 1933. D. H. REEVES 1,923,585

DISPENSING FAUCET

Filed July 20, 1932 3 Sheets-Sheet 1

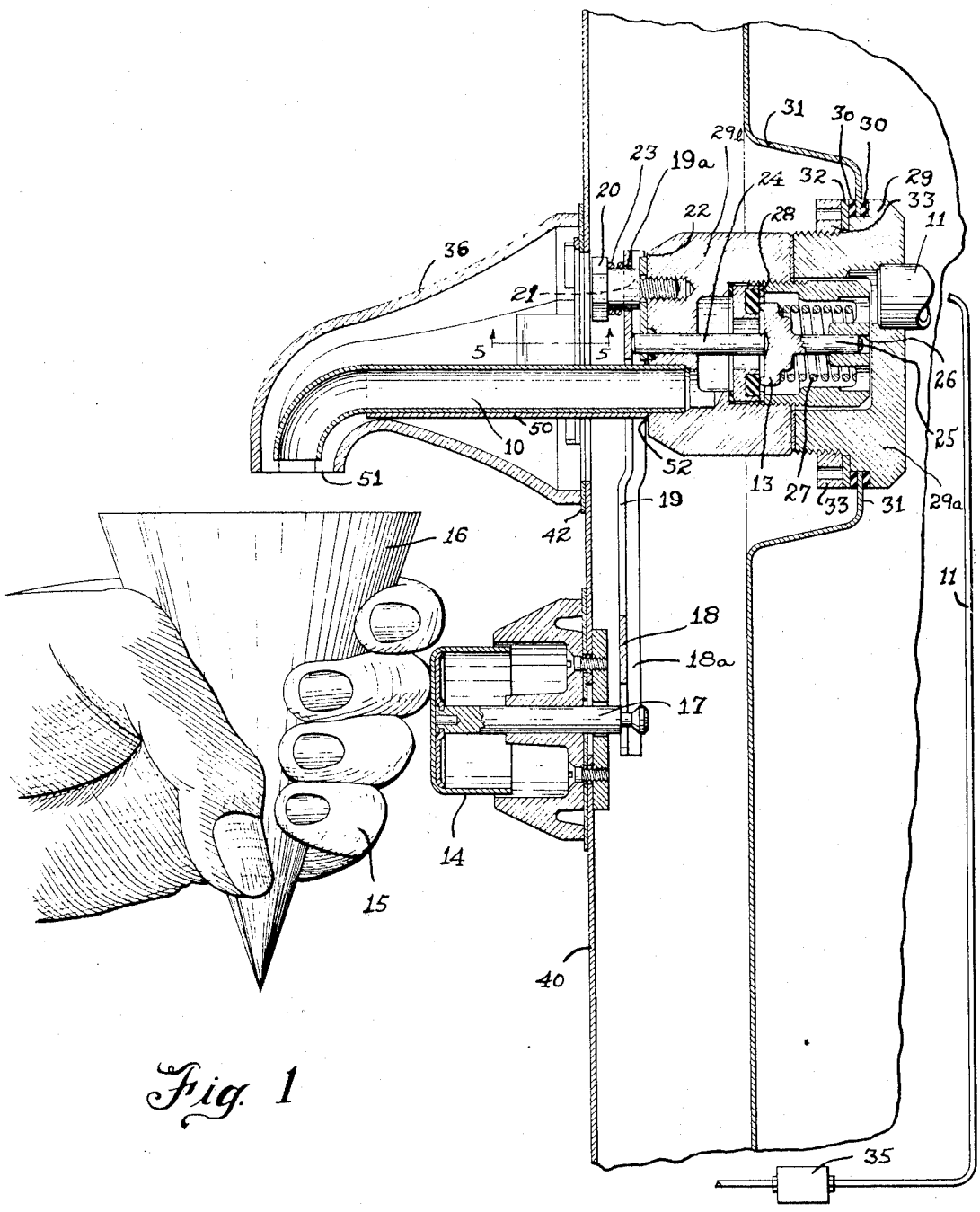


Fig. 1

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DISPENSING FAUCET

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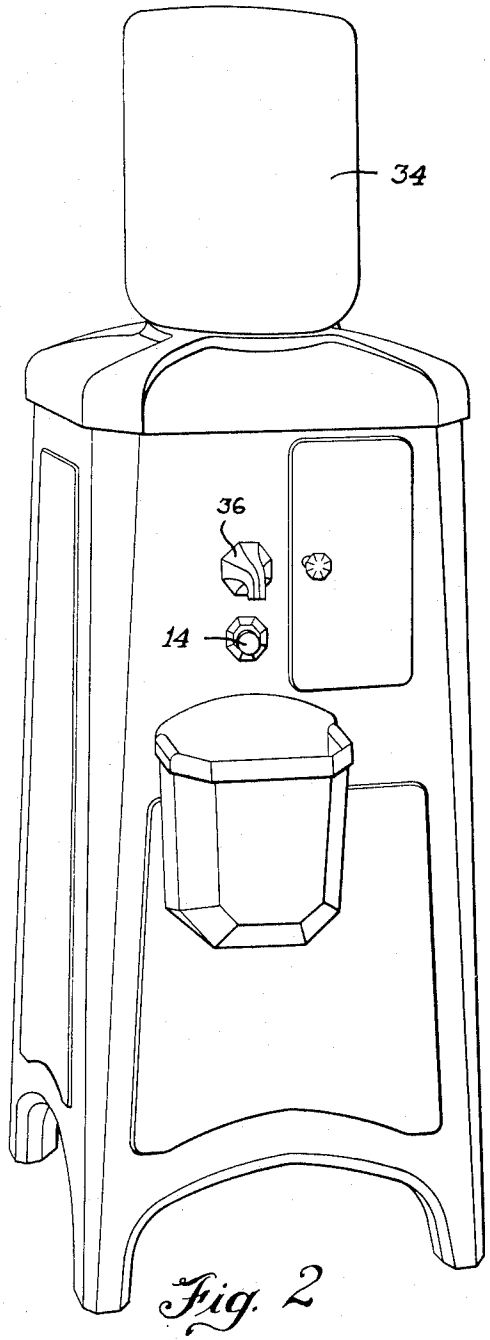


Fig. 2

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DISPENSING FAUCET

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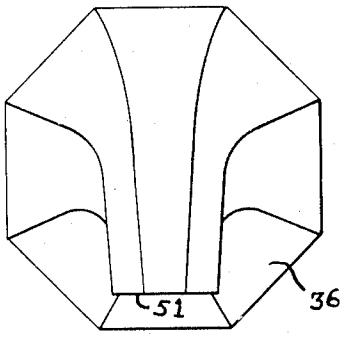


Fig. 4

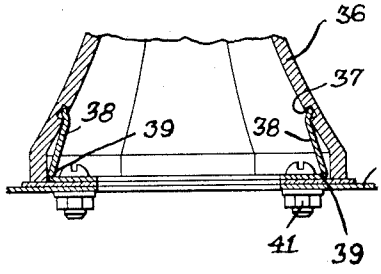


Fig. 5

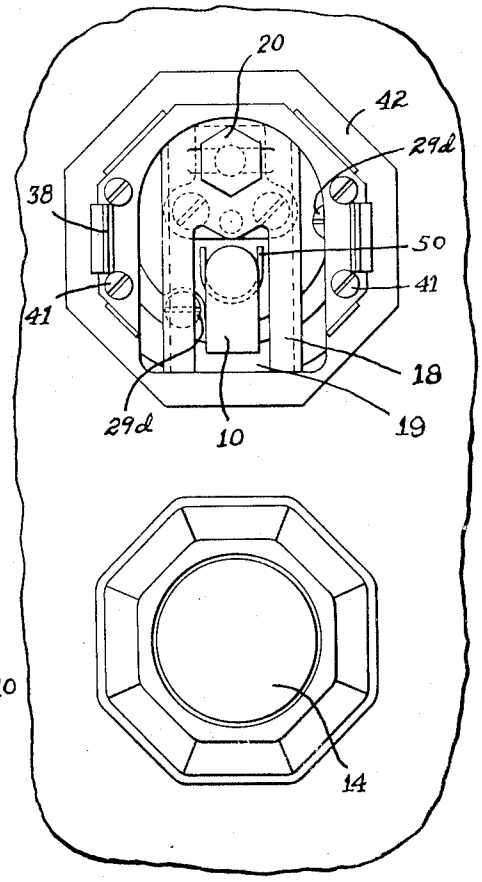


Fig. 3

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UNITED STATES PATENT OFFICE

1,923,585

DISPENSING FAUCET

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Application July 20, 1932. Serial No. 623,549

4 Claims. (Cl. 225—23)

This invention relates to refrigeration and more particularly to a faucet adapted to be used with water coolers or other devices for dispensing drinking water and other beverages and is particularly adapted to be used in connection with beverage dispensing devices where it is customary to fill relatively fragile paper or cardboard drinking cups with liquid from such devices.

An object of this invention is to provide a faucet of the character above described which may be controlled by the same hand which holds the cup or other drinking receptacle without danger of crushing the cup and without the necessity of using the other hand to control the flow of liquid through the faucet.

Another object of this invention is to provide a faucet having a discharge nozzle provided with a removable ornamental cover in such a manner that the cover may be separately manufactured and finished.

Another object of this invention is to provide a cover for the nozzle of the faucet which is insulated from the nozzle to prevent the condensation of moisture on the cover when the faucet is used to discharge cold liquids.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings, wherein a preferred form of the present invention is clearly shown.

In the drawings:

Fig. 1 is a vertical cross-sectional view of a faucet embodying features of my invention, together with certain associated elements, some of which are diagrammatically shown;

Fig. 2 is a view in perspective of a type of water cooler in which my improved faucet may be used;

Fig. 3 is a front elevation of the valve shown in Fig. 1 with the protective cover for the discharge pipe removed;

Fig. 4 is a front elevation of the protective cover for the discharge pipe; and

Fig. 5 is a horizontal cross-sectional view taken along the line 5—5 of Fig. 1.

Heretofore it has been customary to provide faucets for water coolers or other beverage supply devices from which a drinking receptacle made of glass or other relatively hard substance might be filled with the use of but a single hand. In these prior constructions it was necessary to use the drinking glass or receptacle itself as the actuating device to control the flow of liquid through the faucet. In these prior constructions, the levers to be actuated by the drinking glass had such a resistance to actuation that it would be impractical to actuate them with the relatively fragile cardboard or paper cups now usually provided in offices and other places without crushing or damaging the cups. Accordingly, it was customary where these fragile cups were to be used to provide faucets with controls to be manipulated by the hand not holding the cup, thus requiring both hands for the filling operation. A faucet constructed in accordance with my invention, however, may be easily actuated by the same hand which holds the paper cup without the least danger of crushing the cup thus eliminating the necessity to use both hands, and thus permitting persons carrying packages or the like to obtain a drink without the annoyance incident to the use of both hands. I accomplish this by providing a faucet with a relatively large liquid flow control button or actuating portion below the discharge nozzle of the faucet in such a position that the knuckles or fingers of the hand holding the cup in a natural manner may be used to actuate the button while holding the cup in a position to receive the flow of liquid from the nozzle without imposing an undue strain on the cup, so that the filling of the fragile cup can be readily accomplished with but a single hand without danger of crushing the cup.

This invention is susceptible of embodiment in many forms, all coming within its purview. In order that the invention may be readily understood, and not with the intention of limiting its scope, its application to the embodiment or form now preferred will now be more fully described.

In this particular embodiment, the faucet includes a discharge nozzle 10 which is connected to a liquid supply line 11 shown partly in cross-section and partly diagrammatically in Fig. 1. A suitable valve 13 is provided for controlling the flow of liquid from the supply line 11 to the nozzle 10. An actuating member or liquid flow control device is provided, and this actuating member operates the valve 13 and has a portion, conveniently in the shape of a relatively large button 14, positioned below the nozzle for actuating the valve 13. The button 14 is placed in such a position and at such a distance with respect to the nozzle 10 that the button 14 may be actuated by the hand 15 while holding a fragile paper or cardboard cup 16 below the nozzle so that the cup can be readily filled with liquid discharged from the nozzle 10 without imposing

any undue strain on the cup which is likely to crush or distort the cup.

The construction of the actuating member and of the valve 13 is such that but a very slight effort is necessary for actuation. To this end, the button 14 is mounted on a sliding rod 17 which in turn actuates a lever 18. The lever 18 conveniently is in the form of a flat sheet metal member with reinforcing integral flanges 18*a* on each side and having an elongated opening 19 straddling the nozzle 10 and provided with a circular opening 19*a* for the reception of the bolt 20. On each side of the circular opening 19, the member 18 is struck or drawn to provide bulges 21 which rest against the face 22 of the faucet and form pivot points for the lever 18. The bulges 21 of the lever 18 are held against the face 22 by means of a coiled spring 23 interposed between the lever 18 and the head of the bolt 20. The lever 18 actuates a sliding rod 24 which in turn actuates the valve 13. The valve 13 is carried by a rod 25, conveniently formed integrally with the valve 13 and which slides in the slideway 26. The valve 13 is held in closed position by the spring 27 and rests against the rubber insert 28 as will be apparent in Fig. 1. The valve structure is held in place in the water cooler or cabinet, for example, by providing a flange 29 which rests against the rubber gaskets 30 on each side of the wall 31 of the water cooler and which are locked in place by means of a washer 32 and nut 33. The valve casing is made of two parts 29*a* and 29*b* held together against the gasket 29*a* by screw 29*d* (the heads shown in Fig. 3) which pass through part 29*a* into part 29*b*.

The liquid supply line 11 is adapted to have water under relatively low pressure, so that the water does not splash when discharged into the cup or destroy the same. Thus if the cooler is supplied with water from a demijohn 34, as shown in Fig. 2, the water in the supply line 11 will be only under the slight hydrostatic head due to such a construction. However, if the liquid supply line 11 is connected to the city water supply or other supply under a relatively high pressure, the line 11 may be provided with an automatic liquid pressure reducing device valve or restricting orifice 35, diagrammatically shown in Fig. 1, which automatically maintains the liquid pressure in the line 11 below a predetermined or safe limit while being discharged. When the device is connected to a water supply of relatively high pressure, the area of the valve 12 is made sufficiently small so that the button 14 is easily actuated notwithstanding the heavy pressure.

Another feature of this invention is particularly useful when this nozzle is used in connection with a water cooler or other device where the fluid discharged through the faucet is maintained at a relatively low temperature. This feature includes the use of an ornamental cover 36 for the nozzle 10. This ornamental cover forming an insulated shield around the nozzle being readily removable when desired, and which is not likely to "sweat" or have moisture deposited on its exterior surface when the atmosphere has a relatively high humidity. The cover 36 is provided interiorly with notches 37 in which the spring clips 38 are adapted to catch and hold the cover 36 in place when it is forced against the cooler. The clips 38 are provided with bent portions 39, which may be held against the outer wall 40 of the water cooler by means of the nut and bolt construction 41 shown in detail in Fig. 5, and, if desired, a suitable gasket 42 may be interposed between the nozzle 10 and the cover 36. This insures that no sweating will occur on the exterior surface of the cover 36 and also permits the finishing operations to be limited to the removable part or cover 36 of the faucet as will be readily understood.

A trough 50 may be secured to the lower side of the nozzle 10, so that if any water flows along the rod 24, it falls into the trough 50 and is discharged through the opening 51, the end 52 of the trough being closed to prevent flow of condensed water at that end. By this construction the rod 24 does not require a tight stuffing box in part 29*a* and thus has a free action and reduces the pressure required to manipulate the button 14.

In operation, the user takes the paper or cardboard cup 16 in the hand, and, while protecting the cup from crushing pressure by means of his hand, actuates the button 14 with the knuckles or other portions of the fingers of the same hand which holds the cup 16. The water or other liquid is gently discharged into the cup from the nozzle 10 until the hand is withdrawn from the button 14. In this manner it is necessary to use but a single hand for the filling operation, notwithstanding the fact the cup being used may be of such frailness that it would be destroyed if a similar operation were attempted with any of the prior devices used for discharging water or other beverages under similar conditions.

While the form of embodiment of the invention as herein disclosed, constitutes a preferred form, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. A faucet for beverages, drinking water, or the like comprising a discharge nozzle, a liquid supply line for said nozzle, a valve for controlling the flow of liquid from said line to said nozzle, and an actuating member for said valve, said actuating member having a portion positioned below said nozzle at such a distance and positioned with respect to said nozzle that said portion may be actuated by the hand while holding a cup in a natural manner below said nozzle in a position to receive the flow of liquid from said nozzle without danger of spilling.

2. A faucet for beverages, drinking water, or the like comprising a discharge nozzle, a liquid supply line for said nozzle, a valve for controlling the flow of liquid from said line to said nozzle, and an actuating member for said valve, said actuating member having a large actuating button positioned below said nozzle at such a distance and position with respect to said nozzle that said button may be actuated by the hand while holding a cup in a natural manner below said nozzle in a position to receive the flow of liquid from said nozzle without danger of spilling.

3. A faucet for beverages, drinking water, or the like comprising a discharge nozzle, a liquid supply line for said nozzle, an automatic liquid pressure regulating device in said line for maintaining the liquid pressure in said line adjacent said nozzle below a predetermined limit, a valve for controlling the flow of liquid from said line to said nozzle, and an actuating member for said valve, said actuating

member having a portion positioned below said nozzle at such a distance that said portion may be actuated by the hand while holding a cup in a natural manner below said nozzle in a position to receive the flow of liquid from said nozzle without danger of spilling.

4. A faucet for beverages, drinking water, or the like comprising a discharge nozzle, a liquid supply line for said nozzle, an automatic liquid pressure regulating device in said line for maintaining the liquid pressure in said line adjacent said nozzle below a predetermined limit, a valve for controlling the flow of liquid from said line to said nozzle, and an actuating member for said valve, said actuating member having a large actuating button positioned below said nozzle at such a distance and position with respect to said nozzle that said button may be actuated by the hand while holding a cup in a natural manner below said nozzle in a position to receive the flow of liquid from said nozzle without danger of spilling.

DONALD H. REEVES.