

W. A. SCHMEYKAL.

FAUCET.

APPLICATION FILED NOV. 21, 1911.

1,064,549.

Patented June 10, 1913.

3 SHEETS—SHEET 1.

Fig. 1.

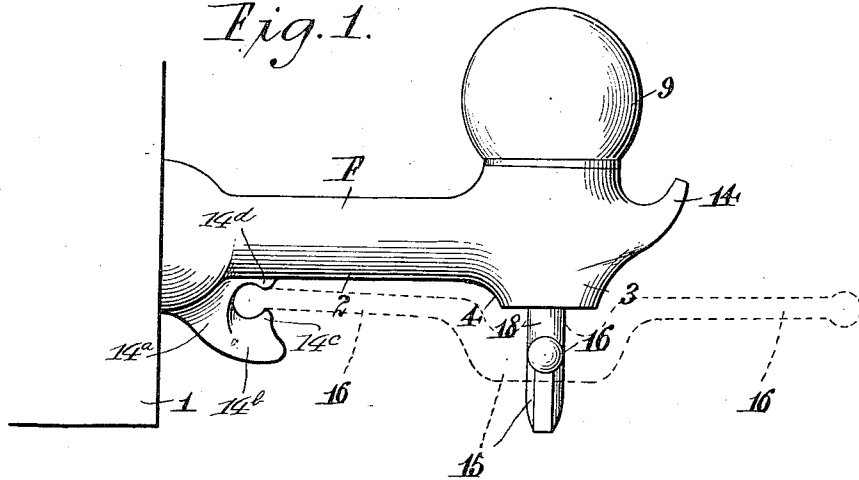


Fig. 2.

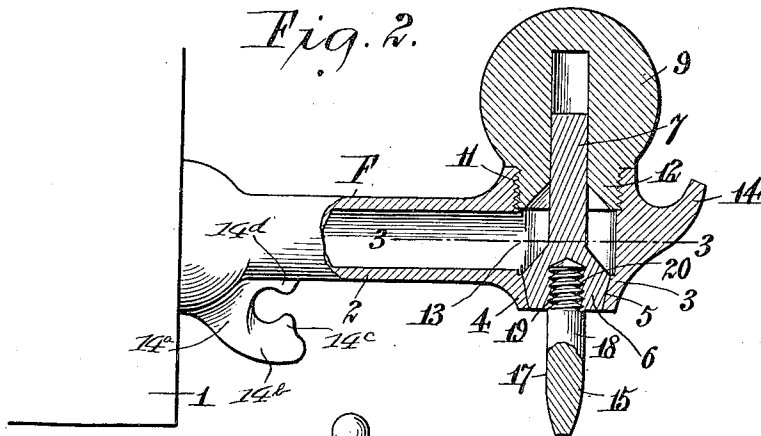
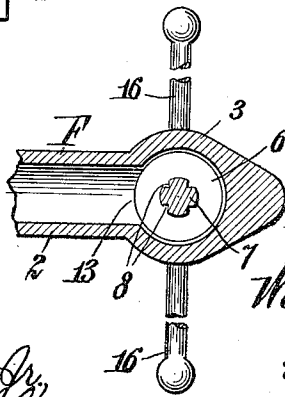


Fig. 3.



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3 SHEETS-SHEET 2.

Fig. 4.

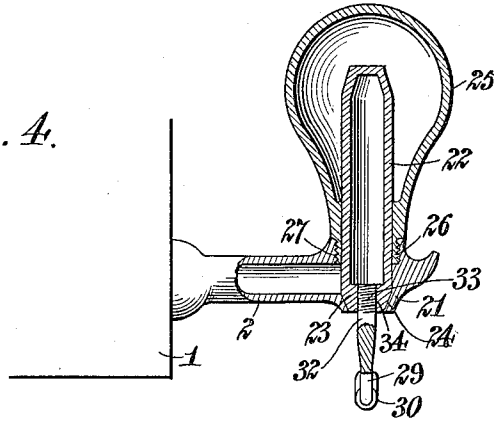


Fig. 5.

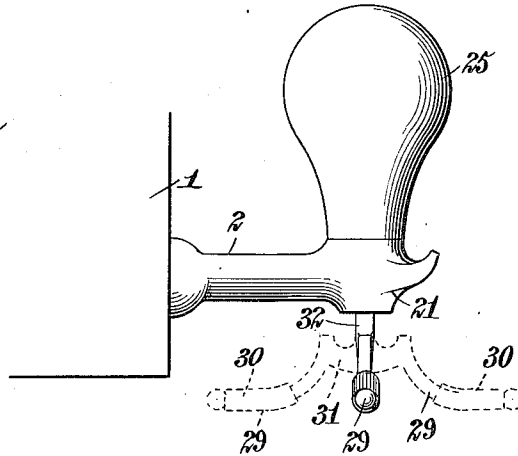


Fig. 6.

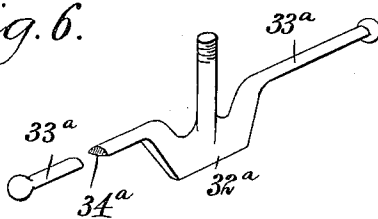
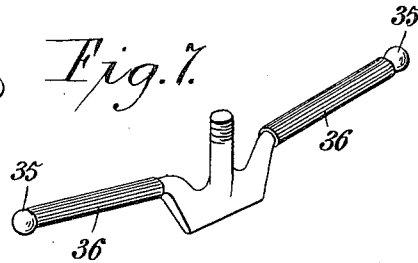


Fig. 7.



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3 SHEETS—SHEET 3.

Fig. 8.

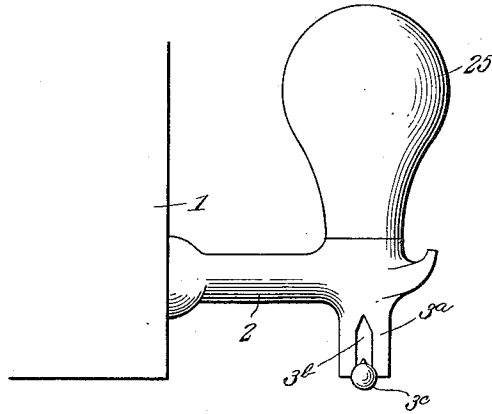


Fig. 9.

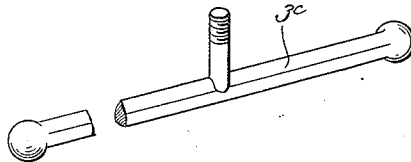
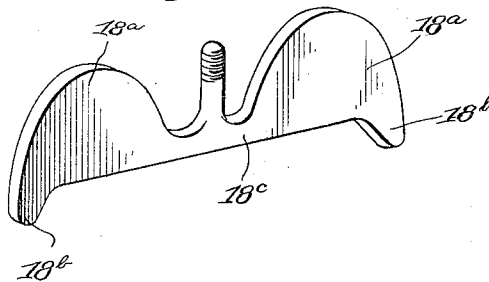


Fig. 10.



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FAUCET.

1,064,549.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed November 21, 1911. Serial No. 661,547.

To all whom it may concern:

Be it known that I, WALTER A. SCHMEYKAL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Faucets, of which the following is a specification.

This invention relates to automatic faucets and is in the nature of an improvement upon the device disclosed in my Patent No. 961,538, dated June 14, 1910.

In the present instance, it is my purpose to provide a faucet which is adapted to be operated for the drawing of liquids by pressing against a portion of the faucet with a receptacle, such as a glass tumbler, bottle or the like in such manner that the valve of the faucet will be elevated to clear the passage through which the fluid flows, said valve returning by gravity to its normal closed position when the upward pressure against the same is released.

Furthermore, it is my purpose to provide a faucet designed for either high or low pressure, which embraces in its construction, a dome or chamber mounted above and communicating with a valve chamber, the air or gas contained in said dome acting as a cushion for the valve when the faucet is operated. Furthermore, when the valve is actuated as hereinafter more particularly described, such valve is moved or projected up into the hollow dome to entirely clear the liquid passage and permit the liquid to flow freely from the container to the selected receptacle.

Still a further object of the invention is to provide a simple, compact and efficient faucet which is devoid of levers, push buttons and similar devices commonly employed, my construction enabling the liquid to be drawn quickly, conveniently and without waste even though the operator be holding tumblers or other receptacles in both hands.

Another object of the invention is to provide an automatic faucet adapted especially for use in hotels, saloons, restaurants, shops, stores and other establishments where liquids are commonly dispensed, the faucet shown in the present instance being provided with means for supporting a receptacle such as a pail or the like in position to receive the liquid as it flows through the faucet from the container.

I also aim to provide a faucet so constructed that the nozzle or discharge end

thereof is designed to be inserted well into the receptacle prior to the opening of the faucet, thus avoiding the loss of liquid in filling bottles and the like.

With the above recited objects and others of a similar nature in view, the invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claims.

In the accompanying drawings:—Figure 1 is a view in side elevation of an improved faucet shown as applied to a liquid receptacle. Fig. 2 is a similar view partially in vertical longitudinal section. Fig. 3 is a horizontal sectional view, taken through the body of the faucet on the line 3—3 of Fig. 2, looking downward. Fig. 4 is a vertical longitudinal sectional view taken through a modified form of faucet adapted to be used in connection with casks or other large receptacles. Fig. 5 is a view of the same in side elevation. Figs. 6 and 7 show modified forms of valve operating arms or bars. Fig. 8 is a view in elevation of a modified form of faucet. Figs. 9 and 10 are detail perspective views of modified forms of valve operating arms or bars.

Referring now to the accompanying drawings in detail, the numeral 1 indicates a suitable liquid container in connection with which my improved faucet is adapted to be employed.

In Figs. 1, 2 and 3, the faucet is indicated as an entirety by the letter F and comprises a pipe or barrel section 2 terminating at its outer end in a valve chamber 3 which is preferably formed integral with the barrel or pipe. This chamber is reduced or tapered at its lower end as at 4 forming an inclined or conical valve seat 5 for the reception or seating of the conical valve disk 6. This latter disk is provided with a vertically extending stem 7 projecting upward centrally from the valve head, said stem having a series of vertically and radially extending grooves 8 formed therein, said grooves or channels permitting the passage of a portion of the air or gas confined in the dome 9 when the valve is lifted from its seat, as in the operation of drawing off the liquid. This dome 9 is in the present instance mounted above the valve chamber and comprises a ball-like chamber or vessel terminating in the externally threaded neck 12 which is adapted to be screwed into the internally threaded end 11 of the valve chamber. This hollow

dome mounted above the valve chamber is of sufficient height to permit the valve stem to project thereinto to such an extent that the valve disk may be raised upward past the communicating port 13 between the pipe 2 and the valve chamber and thereby permit the unimpeded flow from the pipe to the valve chamber and out of the faucet. Furthermore, this dome will naturally retain or hold a certain amount of air or gas which will act as a cushion when the valve is lifted from its seat, the pressure of the gas or air being relieved through the vertical grooves in the valve stem as heretofore mentioned. Projecting from the exterior front surface of the valve chamber, and preferably formed integral therewith is a horn 14 upon which a pail or other receptacle may be suspended when filling the same with the liquid passing through the faucet. This horn is also preferably constructed to form a rest for any implement or article such as a scraper or the like which may be used in dressing off the top of the fluid in the receptacle. In order to operate the valve by lifting the same from its seat to permit the passage of the liquid from the faucet, I provide a suitable lifting means comprising a bar 15 having the two diverging arms 16—16 and the depending central portion 17 from which depending portion extends the vertical stem 18, the upper free end of the latter being threaded as at 19 for the purpose of screwing into the threaded bore 20 formed in the valve disk. It will be noted that as pressure is placed against the bar or lifter to force the latter upward, the valve will be carried upward past the port forming the connection between the pipe or tubing and the valve chamber so that the free flow of the liquid will be permitted. In the structure shown in Figs. 1, 2 and 3, I have shown the lifting device or bar as provided with a depending central portion, and in this instance in the operation of the device the tumbler or other receptacle is placed beneath the lifter in such a manner that the rim contacts with the arms 16—16 while the depending portion of the lifting bar projects into the chamber. Upon moving the tumbler upward and thus pressing against the bar or lifter, the valve will be elevated to uncover the port and the liquid may flow freely through the faucet. As soon as a sufficient quantity of liquid has been drawn the pressure upon the lifter is removed and the valve automatically closed by gravity. In case it is desired to hold the valve in its elevated open position for a comparatively long period of time, as in filling a large pail or other receptacle, I provide a supporting hook 14^a formed beneath the barrel or pipe adjacent to the point of junction of the latter with the container. This hook is formed with the beveled or

tapered sides 14^b converging at the top central portion 14^c which latter forms a rest or support for the arms or bars 16, the web 14^d by which the hook is joined to the faucet acting as a stop to prevent the arms or bars 16, from swinging or passing over the top of the hook. In operation, if a large pail is to be filled the valve is elevated in the usual manner and then turned to bring one of the arms or bars 16 into contact with the adjacent inclined surface of the hook, the arm riding up such surface until it strikes the web 14^d. The operator may now remove his hand from the valve bar and the valve will be held elevated or open until the desired amount of liquid has been drawn when he may restore the valve to its normal closed position.

In Figs. 4 and 5, I have shown a slightly modified arrangement of my faucet, and in this case the device is particularly adapted for use in connection with casks, barrels or other relatively large receptacles. In the structure shown in these views, the pipe or barrel 2 is provided with a conical tubular extension 21 having the inner face thereof tapered or inclined downwardly to form a valve seat. The valve in this instance is in the form of a relatively long plug indicated at 22 and has the lower end formed with a conical valve head 23 adapted to seat upon the tapered or inclined seat 24. The dome 25 is preferably pear-shaped in contour and is provided with a threaded extension 26 adapted to screw into the valve chamber 27. The lifter in this instance comprises a member formed of the two downwardly and outwardly extending arms 29—29 which are preferably covered with rubber as at 30, the central portion of the lifter 31 of the bar being elevated above the two arms and is provided with a stem 32 having its free end threaded as at 33, said threaded being adapted to be screwed into the threaded bore 34 in the valve head. The operation of this form of device is substantially the same as that described in Figs. 1, 2 and 3, and by forming the lifter bar as shown with the elevated central portion, the metallic or central portion of the bar is prevented from coming in contact with the liquid drawn into the chamber or other receptacle.

In Figs. 6 and 7, I have shown a slightly modified form of lifter bar, the bar 32^a shown in Fig. 6 having the depending central portion and the upwardly inclined arms 33^a—33^a flattened on their under surfaces as at 34^a. In the structure of the bar shown in Fig. 7, the outwardly extending arms 35 are also slightly inclined upwardly and are covered with rubber tubing or the like as at 36.

In Fig. 8, I have shown still a further modified form of faucet in this case the lower end of the valve chamber being pro-

vided with an extension 3^a below the valve seat which is slotted vertically, as at 3^b, to permit a bar such as is shown at 3^c in Fig. 9, to operate in, said bar being approximately pentagonal in cross section.

In Fig. 10, I show a form of bar having two enlarged approximately semi-circular wing members 18^a terminating in the depending tongues 18^b between which the tumbler or other receptacle lies when bearing against the straight edge 18^c. The enlarged projecting wing members 18^a prevent the bar from working when the valve is elevated, and at the same time a surface is afforded for the printing or marking of an inscription or indication.

It will be noted that I have provided an exceedingly simple, convenient and efficient type of automatic faucet which is adapted for a great variety of uses, other than those mentioned, and furthermore, it will be noted that the device is positive in its operation, inasmuch, as the liquid may be drawn by simply pressing the rim of the tumbler or other receptacle against the lifter and upon removing such pressure the valve immediately drops back to position, thereby shutting off the flow immediately preventing the dripping or escape and waste of the liquid.

While I have herein shown and described certain particular forms of my invention, I wish it to be understood that I do not limit myself to all the precise details of construc-

tion herein set forth, as modification and variation may be made without departing from the spirit of the invention or exceeding the scope of the appended claims.

Having thus described the invention, what I claim as new, is:—

1. An automatic faucet comprising a barrel-like body portion, a valve chamber at one end of said body portion and having a valve seat formed therein, a movable valve for said seat, a valve operating bar, and a supporting hook depending from the end of the barrel opposite the valve chamber for receiving said operating bar and holding the same in elevated or open position.

2. An automatic faucet comprising a tubular barrel adapted to be connected at one end to a container, a valve chamber formed at the opposite end of said barrel, a dome threaded into the top of said valve chamber and communicating therewith, a valve adapted to seat within the valve chamber, a stem on said valve and projecting into the dome to cushion the movement of the valve to open position and guide such valve in its path of movement, and a valve lifting bar detachably connected to said valve and operable to open the faucet.

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

WALTER A. SCHMEYKAL.

Witnesses:

JOE A. SLIVER,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."