A. L. KING.

SYRINGE.

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1,127,898.

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Fig. 1.

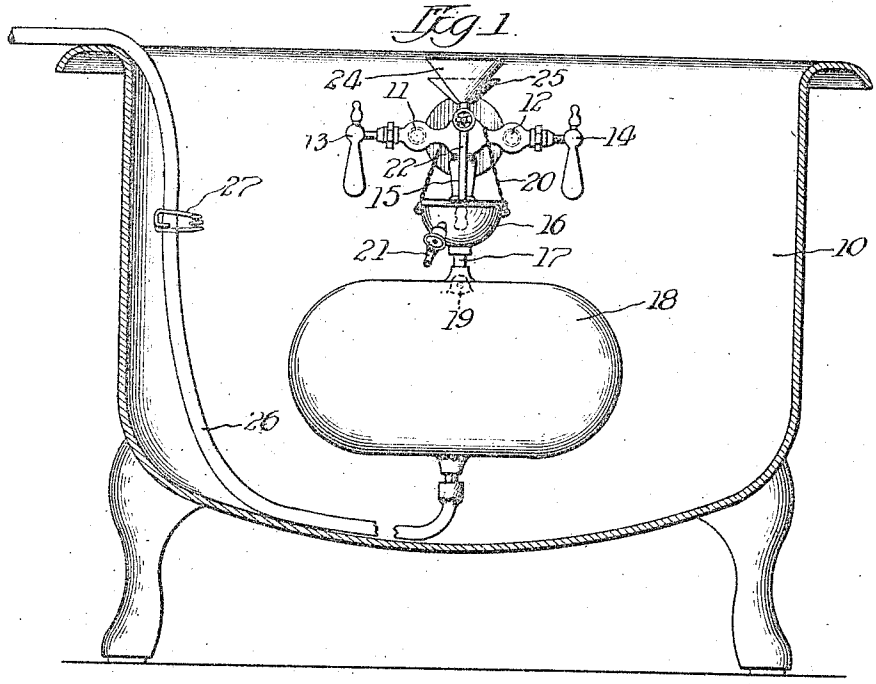


Fig. 2

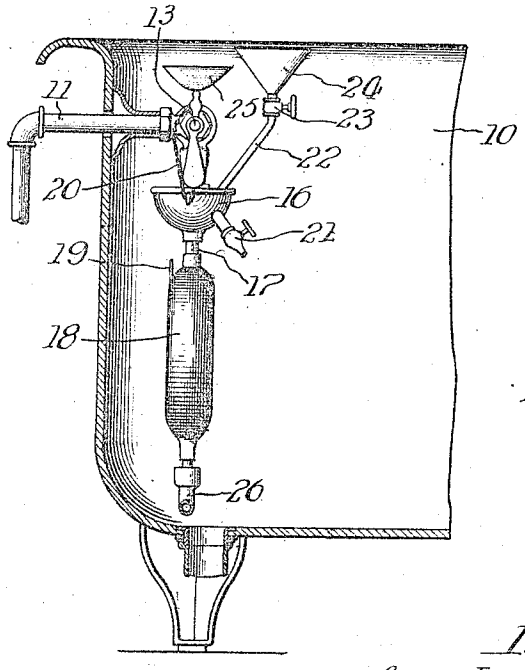
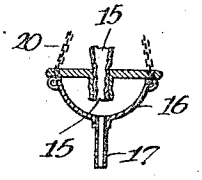


Fig. 3.



Witnesses:

Ed. C. Davison

Harold G. Barrett

Inventor:

Annie Leona King,

By Brown, Nissen & Sprinkle

Attys

UNITED STATES PATENT OFFICE.

ANNIE LEONA KING, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO CHARLES J. L. KING, OF CHICAGO, ILLINOIS.

SYRINGE.

1,127,898. Specification of Letters Patent. Patented Feb. 9, 1915.

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To all whom it may concern:

Be it known that I, ANNIE LEONA KING, a subject of the King of England, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Syringes, of which the following is a specification.

My invention relates to syringes, and has for its primary object the provision of an improved syringe which shall have improved means whereby a quantity of attempered water may be mixed with a medicament at will and forced through the syringe tube at any desired pressure.

With the above and other objects in view, this invention consists substantially in the combination, arrangement and construction of parts, all as hereinafter described, shown in the accompanying drawings, which form a part of this specification, and illustrate the preferred embodiment of my invention, and more particularly set forth in the subjoined claims.

In the drawings, Figure 1 is a transverse section of a bath tub illustrating the combination hot and cold water faucet thereof with my invention attached to said faucet. Fig. 2 is a longitudinal section of the same tub illustrating in side elevation the apparatus shown within the tub in Fig. 1, and Fig. 3 is a detail view of a fluid-tight connection.

Reference numeral 10 indicates an ordinary bath tub provided with a combination plumbing attachment comprising a hot water supply 11 and a cold water supply 12, respectively controlled by valves 13 and 14, the water from both sources of supply discharging from a common spout 15 in the ordinary and well known manner. At 16 is shown an attachment cup constructed in any suitable manner for fluid-tight removable attachment to the lower end of the spout 15 and provided with an outlet 17, to which is detachably secured a syringe bag 18 provided with any suitable form of loop 19, by means of which it may be suspended from a hook on the wall. Any suitable device such as the chain 20 is secured to the attachment cup 16, both for assistance in retaining the attachment cup and the syringe bag in position upon the spout 15, and also for use when it is desired to detach the attachment cup and the bag 18 together and suspend them from a hook on the wall. A spigot 21 communicates with the interior of the attachment cup 16 and by opening of the spigot 21, liquid may be discharged into the open tub 10 from the attachment cup at will.

Communicating with the attachment cup 16, preferably in the upper surface thereof, is a pipe 22 controlled by a valve 23, and above the valve and communicating therewith is a funnel 24, the valve 23 controlling passage of fluid from the funnel to the attachment cup or in the reverse direction. At 25 is shown the ordinary soap holder generally forming a part of the combination faucet previously described, and preferably the pipe 22 is outwardly bent to provide clearance between the funnel 24 and the soap holder 25. A syringe tube 26 communicates with the bottom portion of the syringe bag 18 in the ordinary manner and is supplied with the well known shut-off clasp 27. Any form of discharge nozzle (not shown) may be attached to the free end of the syringe tube 26. Also, if desired, a second syringe tube (not shown) may be attached to the spigot 21.

In the use of this invention a liquid medicament is placed in the funnel 24, the valve 23 being closed. Following this, suitable attemperation of water from the sources 11 and 12 may be had by opening the spigot 21 and subsequently opening the valves 13 and 14, a temperature test of the water supplied through the spout 15 being made by inserting the finger in the stream issuing from the spigot, and manipulation of the valves 13 and 14 will bring the temperature of water discharged from the spout 15 to the desired degree. When the proper temperature of water from the discharge 15 has been secured the spigot 21 is closed and the valve 23 opened, thereby allowing the gravitation of the medicament from the funnel 24 into the connection cup 16 wherein it mixes with the attempered water coming from the spout 15 and allowing the mixture resulting to pass into the syringe bag 18 and thence through the syringe tube 26 for use as desired. Should it be necessary to make use of the admixture of attempered water and medicament at a considerable pressure the closing of the valve 23, the spigot 21 being also closed, will supply at the free or discharge end of the syringe tube 26 a force as great as that permitted

by the valves 13 and 14, my invention being fluid-tight throughout for that purpose. If the force of fluid, however, be too great, an opening of the spigot 21 will relieve pressure as much as desired while still retaining in the funnel 24 any unused medicament.

When it is desired to employ my invention as an ordinary fountain syringe the bag 18 may be detached from the connection cup 16 and by means of the loop 19 may be suspended from a hook upon the wall in a well known manner. If it be desired to employ my invention as a fountain syringe and to make use of an admixture of water and medicament in the bag 18, the above described process of attemperation of water may be followed out together with the admixture of medicament from the funnel 24, a suitable supply of the mixture being allowed to pass into the bag 18. When the bag is partly or entirely filled the shut-off clasp 27 may be operated to retain the mixture in the bag during disconnection of the bag from the attachment cup and suspended upon the hook in the wall. A still further function may be performed by the use of my invention in that the chain 20 may be unhooked, to release the attachment cup 16 and all other parts carried thereby from the discharge 15, and the whole apparatus elevated by suspending it upon the wall by means of the chain and a wall hook. When so suspended, the bag 18 having first been filled with properly attempered water, any amount of medicament as desired may be mixed with the water in the bag by manipulation of the valve 23.

It is to be noted that a large range of discharge pressure is provided for in the combination of parts above disclosed, for the water attempered and discharged from spout 15 may be at very low pressure and small amount or at a pressure as high as that furnished in the two sources of supply 11 and 12 and in a large amount, manipulation of the valves 13 and 14 accomplishing this end. When, however, proper attemperation of water has been had it is of course desirable that neither of the valves 13 or 14 be adjusted, for the reason that such adjustment would vary the temperature of the water passing from the discharge 15, hence the use of the spigot 21 to reduce pressure.

In the accompanying drawing and the foregoing description is set forth the preferred embodiment of my invention, but it is obvious that one skilled in the art could make modifications thereof without departing from the spirit of the invention.

I claim:

1. The combination with sources of supply of hot and cold water, independent valves therefor and a common discharge for the sources, of a hollow member attached to said discharge in a fluid-tight connection, a syringe bag communicating with the hollow member, and a spigot communicating with the hollow member.

2. The combination with sources of supply of hot and cold water, independent valves therefor and a common discharge for the sources, of a hollow member removably attached to the discharge in a fluid-tight connection, a syringe bag communicating with the hollow member and suspended therefrom, and a spigot communicating with the hollow member.

3. The combination with valved sources of supply of hot and cold water and a common discharge therefor, of a hollow member removably attached to said discharge and communicating therewith in a fluid-tight connection, a syringe bag removably secured to said hollow member and communicating therewith in a fluid-tight connection, and an independent discharge spigot communicating with the hollow member.

4. The combination with valved sources of supply of hot and cold water and a common discharge therefor, of a hollow member removably secured to said discharge in a fluid-tight connection, a syringe bag removably secured to said hollow member in a fluid-tight connection, an independent spigot communicating with said hollow member, and a valve-controlled container for liquid positioned above said hollow member and communicating therewith.

5. The combination with valved sources of supply of hot and cold water and a common discharge therefor, of a hollow member removably secured to said discharge in a fluid-tight connection, a syringe bag removably secured to said hollow member in a fluid-tight connection, an independent spigot communicating with said hollow member, and a valve controlled container for liquid positioned above said hollow member and communicating therewith, said container being supported by the hollow member.

6. The combination with valve controlled sources of supply of hot and cold water and a common discharge therefor, of an attachment cup removably secured to said discharge in a fluid-tight connection, a syringe bag removably secured to and supported by said attachment cup and communicating therewith in a fluid-tight connection, an independent spigot communicating with said attachment cup, a container for liquid positioned above said attachment cup, and a valved discharge pipe supporting said container and affording communication between it and the attachment cup.

7. The combination with valve controlled sources of supply of hot and cold water and a common discharge therefor, of an attachment cup removably secured to said discharge in a fluid-tight attachment, a syringe

bag removably secured to and supported by said attachment cup and communicating therewith in a fluid-tight connection, an independent spigot communicating with said attachment cup, a container for liquid positioned above said attachment cup, a valved discharge pipe supporting said container and affording communication between it and the attachment cup, a suspension device upon said attachment cup, and a suspension device upon said syringe bag.

8. The combination of a hollow member for attachment to a fluid discharge, a syringe bag communicating with the hollow member, and a spigot communicating with the hollow member.

9. The combination of a hollow member, means thereupon for removably attaching the same in a fluid-tight connection to a water faucet, the syringe bag communicating with the hollow member and supported thereby, and an independent spigot communicating with the hollow member.

10. The combination of an attachment cup having means for removably securing it to a water faucet in a fluid-tight connection, a syringe bag removably secured to the attachment cup in a fluid-tight connection, an independent spigot communicating with the attachment cup, and a valve-controlled container for liquid supported by the attachment cup thereabove.

11. The combination of an attachment cup having means for removably securing it to a water faucet in a fluid-tight connection, a syringe bag removably secured to the attachment cup in a fluid-tight connection, an independent spigot communicating with the attachment cup, a valve-controlled container for liquid supported by the attachment cup thereabove, and means for suspending the attachment cup and parts carried thereby from a support.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 23d day of April, A. D. 1914.

ANNIE LEONA KING.

Witnesses:
CHARLES H. SEEM,
H. G. ROCKWELL.