

H. Getty.

Faucet,

No 20,788,

Patented July 6, 1858

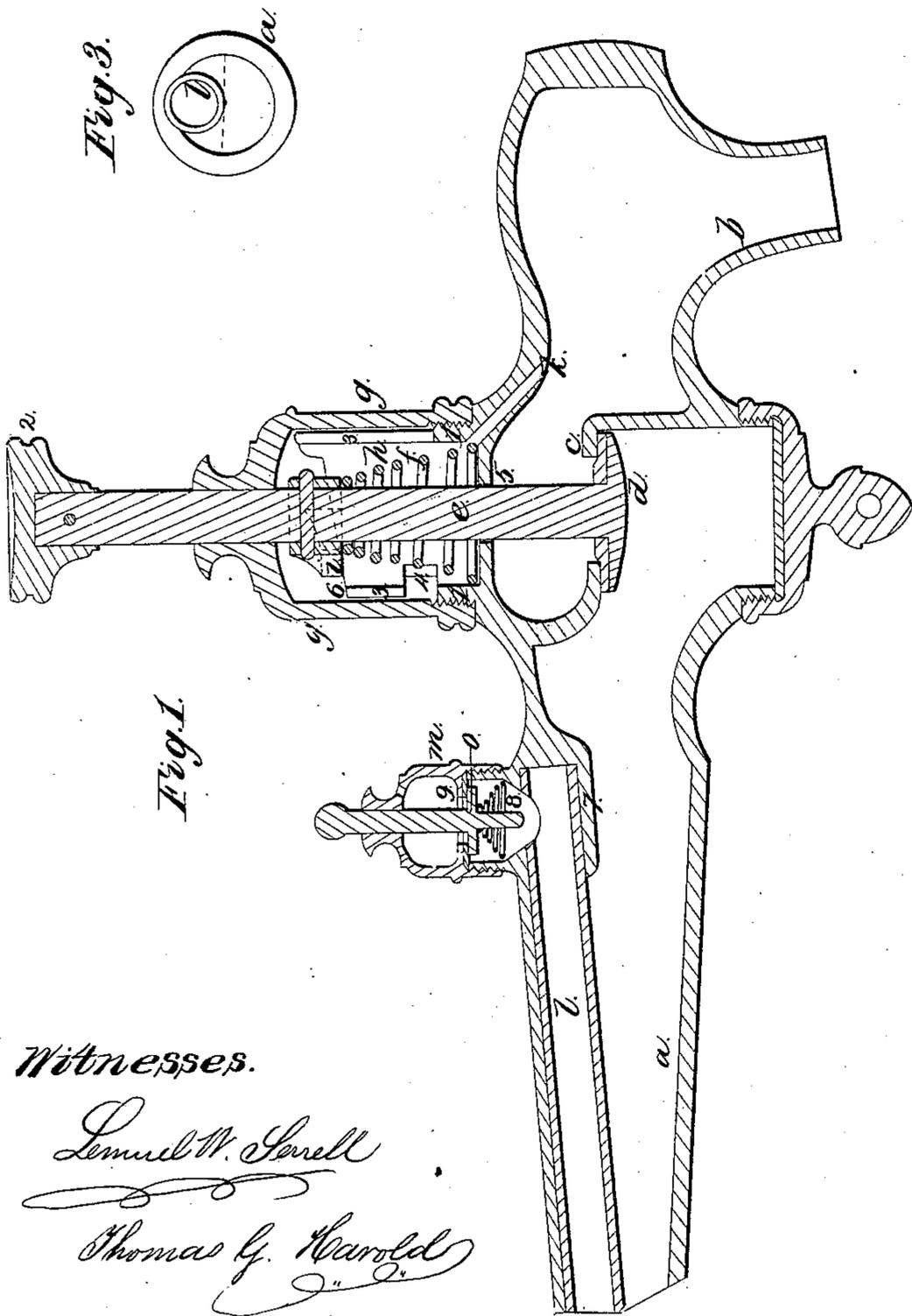


Fig. 3.

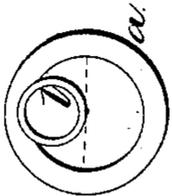
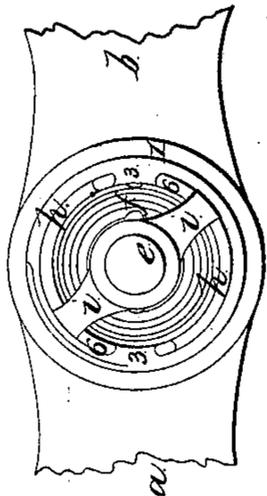


Fig. 1.

Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY GETTY, OF BROOKLYN, NEW YORK.

FAUCET.

Specification of Letters Patent No. 20,788, dated July 6, 1858.

To all whom it may concern:

Be it known that I, HENRY GETTY, of Brooklyn, in the county of Kings and State of New York, have invented, made, and applied to use certain new and useful Improvements in Faucets for Water and other Liquids or Fluids; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, is a vertical longitudinal section at the center of the cock. Fig. 2, is a plan of the spring barrel and valve rod as with the inclosing cylinder removed, and Fig. 3, is an elevation of the rear end of the plug, showing the manner of inserting the air tube.

Similar marks of reference indicate the same parts.

Faucets have heretofore been made with a valve shutting up against a seat by a spring and the pressure of the liquid, and such valves have been securely locked in place, as in my patent of September 1st 1857, and the faucet has also been fitted in such a manner that air could be admitted to the barrel containing the liquid, to allow said air to pass in as the liquid runs out, but there are times when air is not required to be admitted such as with beer and other liquors whose fermentation produces a greater pressure than the atmosphere, so that if an air vent was opened the liquid would flow out thereof, and at other times air is required to be admitted as the liquid runs out.

The nature of my said invention relates to the use of an air valve opening inward, located on the faucet and connected to the barrel itself through said faucet by means of an air pipe fitted into said faucet in a peculiar manner; also to a manner of arranging slots and inclines in connection with the valve rod, so that the valve can be pressed down for opening and be held open while the liquid is running, or else drawn firmly to its seat when closed; and also in a suction pipe so located and acting that the discharge of the liquid from the cock produces a suction that carries off any liquid that may escape around the valve stem, obviating the necessity of packing said valve stem.

In the drawing *a*, is the plug of the

faucet; *b*, the delivery pipe; *c*, is the seat; *d*, is a valve on a stem *e*, having a button 2, on the upper end; *f* is a spring acting in conjunction with the pressure of the liquid to keep the valve tight. These parts thus far are to be of any ordinary size or proportions and act in the usual manner, similarly to the parts shown in my aforesaid patent of Sep. 1st 1857.

g is a cylinder screwed onto the cock at 1, and surrounding the valve rod *e*, and forming a guide for said valve rod at the upper end of said cylinder. Within this cylinder and formed on the cock is a second cylinder *h*, in which vertical slots 3, 3, are formed and short L formed slots 4, 4, at their base.

i, is a cross piece or arm on the valve rod *e*, the ends of which cross piece move in the said slots 3, 3, as the button 2, and valve *d*, are pressed down to open the faucet, and if desired to retain the faucet open the ends of this cross piece *i*, are passed into the horizontal slots 4, 4, by a slight turn of the valve and stem. Upon releasing said cross piece the spring *f*, closes the valve up against its seat. I prefer that this spring be of German silver as retaining its elasticity better and being more durable than brass.

Should the valve *d*, leak, or it be desired to prevent the same being opened from anything falling accidentally onto the button 2, I make use of double inclines 6, 6, formed on the top of the cylinder *h*, against which the ends of the cross piece *i*, are brought by a partial turn of the button 2, and stem *e*, so that the valve is securely forced against its seat.

Unless a packing be used around the stem *e*, at the point 5, there will be more or less leakage and a packing at this point is very difficult, and almost impossible to apply and keep in order. I therefore allow the hole through which said stem *e*, passes to be free and any liquid to pass through into the cylinder *h*, from which I cause said liquid to be emptied by the suction produced through the inclined pipe *k*, passing from the cylinder *h*, into the discharge pipe *b*, in such a manner that the rush of liquid past the end of said pipe *k*, in its inclined position, produces a suction that removes all liquid that may leak into the cylinder *h*.

In cocks that have heretofore been formed so as to supply air into the barrel, the rear part of the plug has been formed solid as shown by the dotted line Fig. 3, in order

to have sufficient metal for boring in the air hole; this has choked up the water way, preventing a free discharge of the liquid; to obviate this I insert a thin sheet metal tube in the sand forming the core, and cast the metal around said tube so as to inclose the end thereof as seen at 7, Fig. 1, by which means the plug or shell of the cock is as little obstructed as possible, and the amount of metal and cost of drilling are avoided. The air valve *o*, is applied at the end of the pipe *l*, and is supported by a cap *m* and the weight of said air valve is balanced by a spring 8, so that the valve is kept to its seat 9 by the hydrostatic pressure of the liquid, or the force of the same, until the pressure within the cask or vessel is less than that of the atmosphere, when said valve opens of itself and the air rushes in to supply the deficiency.

It will be apparent that the inclines 6, 6, might be formed on the cross piece *i*, instead of on the cylinder *h*, in which case the parts would simply be inverted, and act in the manner before specified:

Having thus described my invention and the operation of the same, I would state that I do not claim supplying air to the cask or barrel through the cock; neither do I claim a self closing or valve faucet; and I do not claim a drip hole to allow water, leaking

through at the valve stem or piston rod, to run away at the discharging orifice; but

What I claim as my invention and desire to secure by Letters Patent is—

1. The cylinders *g* and *h*, and slots 3 and 4, in combination with the arm *i* on the valve stem *e*, and the inclines 6, 6, substantially as and for the purposes specified.

2. I claim the suction pipe *l*, between the point of leakage or overflow at the spindle, rod or valve stem, and the delivery pipe, when said pipe *l*, is in such a position to the discharging liquid, that the rush of said liquid past its end shall augment the speed of the liquid in said pipe, and draw away any leakage as specified.

3. I claim the air tube *l*, of thin sheet metal or equivalent material inserted into the shell of the faucet substantially as and for the purposes specified.

4. And in combination with said tube *l*, I claim the self acting air valve *o*, on the cock substantially as and for the purposes specified.

In witness whereof I have hereunto set my signature this fifteenth day of March 1858.

HENRY GETTY.

Witnesses:

LEMUEL W. SERRELL,
THOMAS G. HAROLD.