

J. N. SMITH.

Improvement in Faucets.

No. 128,762.

Patented July 9, 1872.

Fig. 1.

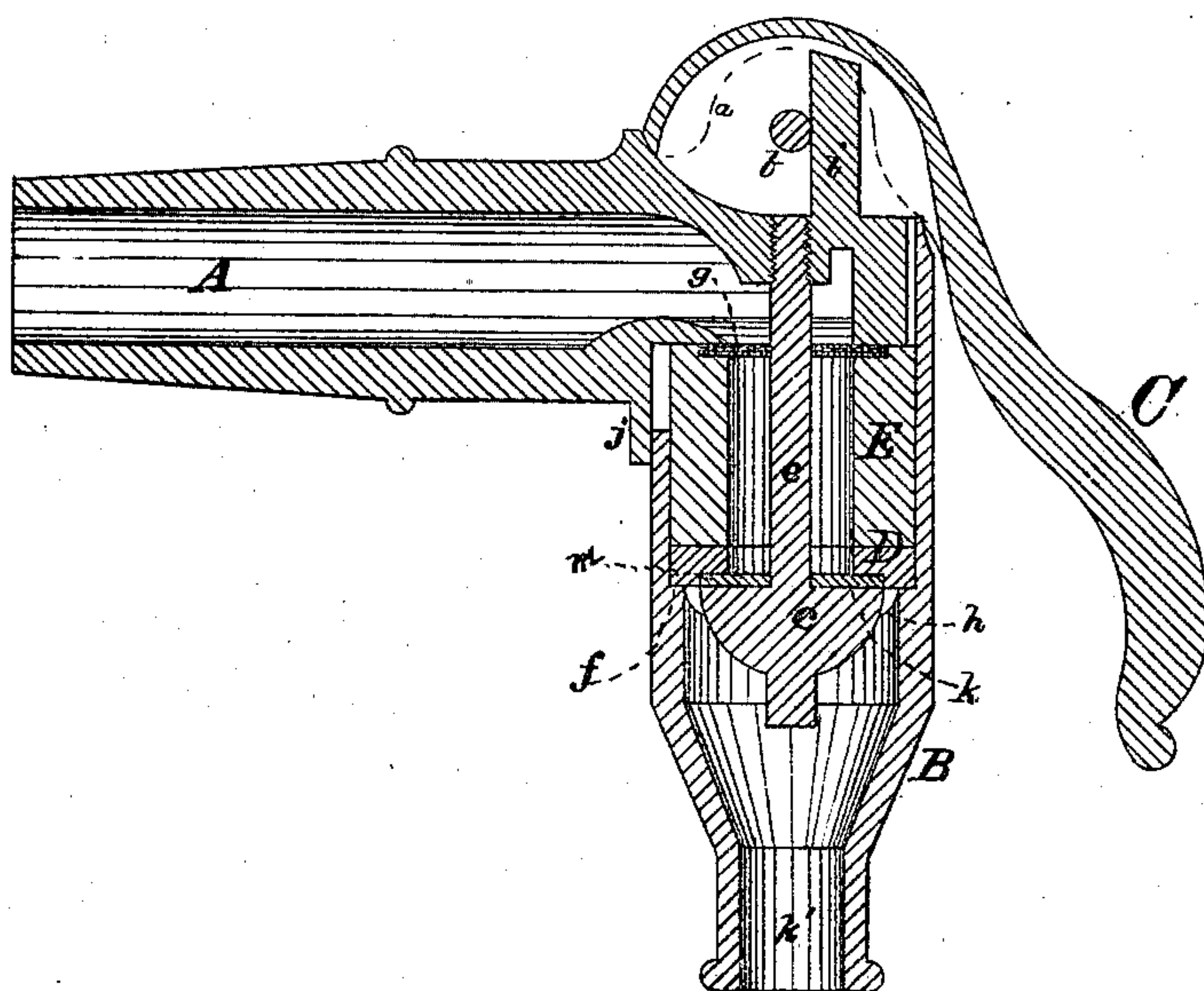
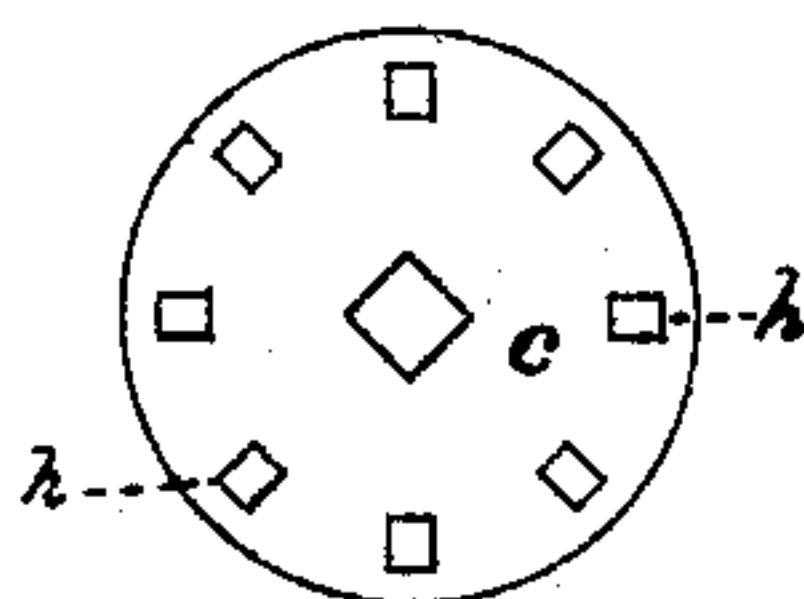


Fig. 2.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN FAUCETS.

Specification forming part of Letters Patent No. 128,762, dated July 9, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, J. NOTTINGHAM SMITH, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain Improvements in Faucets; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The object of my invention is to produce a faucet, which shall be simple, cheap, durable, effective, and less liable to freeze or get out of order than those now in use. I prefer to make my faucet principally of cast-iron, though any other suitable metal or material may be employed for that purpose.

My said invention consists of a tube which is inserted in the cask or other vessel or source from which fluid is to be drawn, a nozzle-piece or discharge end which is raised by a cam-lever, to open the valve and let the fluid escape, and a valve and seat so connected to the other portions of the faucet that they may readily be operated by means of the said cam-lever. I also provide a strainer to prevent foreign matter from passing out with the fluid.

In the accompanying drawing, Figure 1 is a vertical longitudinal section through the center of the faucet. Fig. 2 is a bottom view in detail of the valve-seat and valve.

A is the tube through which the fluid enters the faucet. B is the movable nozzle-piece enclosing the valve; C, the cam-lever; D, the valve; and E, an India-rubber tube which serves as a spring to actuate the valve, a packing to prevent the escape of the fluid at the junction of the tube A and tube B, and a means for holding the filter securely in its place. The tube B has an ear or flange projecting upward at each side at its upper end, (one of which ears is shown in dotted line at *a*, Fig. 1,) between which ears the cam-lever C is hung on the pin *b*. This pin passes through the said cam-lever, serving as its fulcrum, and also through the ears. The nose or cam-shaped end of the lever C bears on a suitable seat on the top surface of the tube A, which tube A is inserted or fixed in the cask or other source of supply and remains immovable therein. In the under side of the tube A a hole is made, through which the rod or sta-

tionary stud or bolt *e* passes and is screwed into the upper side thereof. The lower end of this bolt is enlarged, as at *c*, said enlargement forming a valve-seat for the valve D. The outer edge of this valve D rests on the inwardly-projecting shoulder *f* on the discharge-tube B. The valve D is pressed down when the lever C is not raised by the spring tube of India-rubber E. This rubber tube also serves to hold the strainer *g* in place between its upper edge and the bottom surface of the tube A, and to make a water-tight joint between the tubes A and B where they join. On the lower enlarged end of the bolt *e* at the outer edge of the said enlargement projecting pieces *h* are formed, the ends of which just touch the inner surface of the tube B and hold it central. Projecting upward from the top surface of the tube A near its outer end is a stud or bearing-plate, *i*, against which the pin *b* bears and slides up and down, and this bearing-plate in conjunction with the projections *h* on the bolt *e* serve to insure the moving of the tube B in a right line parallel with its axis. A flange, *j*, also aids in performing the same function.

In operating this faucet, it is evident that by raising the handle or lever C the tube B (and with it the valve D by means of the shoulder *f*) will be drawn up, raising the valve D off from the leather or India-rubber packing *k*, and allowing the fluid to pass from the tube A down around the bolt *e*, through the strainer *g* and the opening in the center of the rubber E and the valve D, around outside of the enlarged part *c* of the bolt *e*, between the arms or projections *h* on the said part *c*, and thence out of the discharge-end or nozzle *k'* of the tube B. It is evident that, upon releasing the lever C, it will drop to the position shown in the drawing, and the rubber spring E will expand and close the valve.

The faucet, constructed as above set forth, may be made almost entirely of cast-iron, and will therefore be cheap. It is simple and durable, tighter than any ordinary faucet, and as tight and much more durable than a ground joint. It is not liable to freeze easily, as the India-rubber tubing E serves to retain the heat in a great measure. The cam-lever C may be so formed that it will retain its position when raised, thus keeping the valve open,

or it may be made so as to fall as soon as released, as shown.

Having thus fully described my invention, I claim—

1. The combination, with the tube A, of the movable nozzle-piece or tube B and lever C, when the motion of the said tube B is employed to actuate the valve D, substantially as described.

2. In combination with the movable tube B the stud or bearing-plate *i* and pin *b* and the stub *e*, with arms *h*, substantially as and for the purpose specified.

3. The combination, with the valve-seat *c*, of the valve D, packing *m*, and India-rubber tubing E, the whole forming a valve, with the shoulder *f* for actuating it, substantially as set forth.

4. The combination, with the tubes A and B and tubing E, of the strainer *g*, held in place by the said tubing, and surrounding the rod *e*, substantially as and for the purpose described.

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Witnesses:

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