No. 644,473. Patented Feb. 27, 1900.

R. SELLERS.

VALVE OR FAUCET.

(Application filed Sept. 28, 1899.)

(No Model.)

Fig. 1.

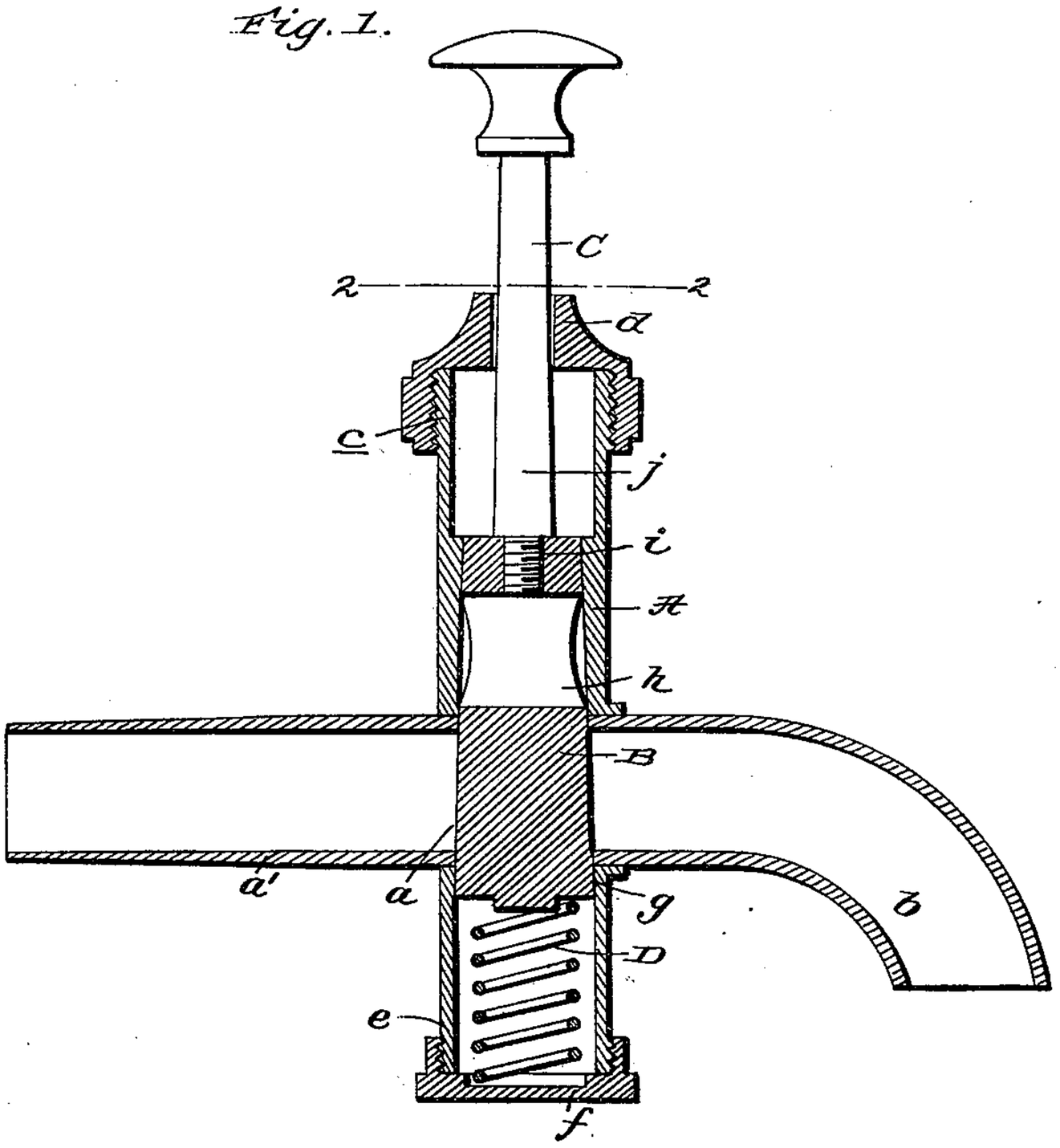
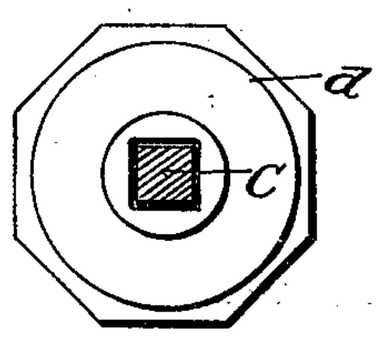


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

RICHARD SELLERS, OF NEW YORK, N. Y.

VALVE OR FAUCET.

SPECIFICATION forming part of Letters Patent No. 644,473, dated February 27, 1900.

Application filed September 28, 1899. Serial No. 731,950. (No model.)

To all whom it may concern:

Be it known that I, RICHARD SELLERS, a citizen of the United States, residing at New York, (Brooklyn,) in the county of Kings and State of New York, have invented new and useful Improvements in Valves or Faucets, of which the following is a specification.

My invention relates to reciprocatory valves or faucets of the self-closing type; and it consists in the peculiar and advantageous construction hereinafter described, and particularly pointed out in the claim appended.

In the accompanying drawings, Figure 1 is a vertical section of my improved valve or faucet. Fig. 2 is a detail section taken in the plane indicated by the broken line 2 2 of Fig. 1.

Referring by letter to the said drawings, A is the casing, B the cut-off piston, and C the piston-stem, of my improved valve or faucet.

The casing A is provided with the usual induction-port *a* and lateral arm *a'* for connection to a source of supply, a spout *b*, arranged opposite the arm *a*, an upper threaded end *c* for the engagement of a bonnet *d*, and a lower threaded end *e* for the engagement of a screw-cap *f*. It is also provided with an upwardly-tapered or conical piston-seat *g*, which is located between the arm *a'* and spout *b*, as shown.

The cut-off piston B is tapered or gradually reduced in diameter toward its upper end, so as to conform to the tapered seat *g*, and is provided with a transverse port *h*, designed when the piston is depressed to effect direct communication between port *a* and spout *b*. It is also provided at its upper end with a threaded aperture *i* for the connection of the stem C. The said stem is provided with a portion *j*, of angular form in cross-section, which extends through a correspondingly-shaped aperture in the bonnet *d* and is designed to hold the piston B against turning.

D is a coiled spring interposed between the bonnet and larger end of the piston B and the screw-cap *f*. This spring has for its purpose to return the cut-off piston B to its closed position and normally hold it in such position.

In practice it is simply necessary in order to open the valve to press downwardly on the stem until the port *h* of the piston is coincident with the port *a* and spout *b* of the casing A. The downward movement of the piston compresses the spring D, and therefore when pressure is removed from the stem said spring operates to quickly return the piston to and hold it snugly in its seat.

By virtue of the seat *g* and piston B being made tapering, as described, there is no friction between the piston and its seat incident to the downward movement of the former, and hence no frictional wear of either, which is an important advantage, since it renders the use of packing unnecessary and materially prolongs the usefulness of the valve. The tapered form of piston and seat is also advantageous, inasmuch as a very tight closure is effected when the former is pushed upward by spring D, and there is no liability of leakage at the upper end of the casing.

When the cut-off piston B is seated, its lower solid portion rests between the port *a* and spout *b*. This arrangement is materially advantageous, inasmuch as the head of water acts against the side of the piston only, and therefore does not offer any resistance to the downward movement of the piston necessary to open the valve or faucet.

It will be readily appreciated from the foregoing that my improved valve or faucet is simple and inexpensive in construction and embodies no parts which are liable to get out of order after a short period of use.

Having thus described my invention, what I claim is—

The herein-described reciprocatory valve or faucet consisting essentially of the casing having the removable screw-cap at its lower end, and also having the induction-port at an intermediate point of its length, the discharge-spout opposite the induction-port, and the valve-seat *g* located between said induction-port and discharge-spout and tapered or gradually reduced in size in the direction of its length, the endwise-movable cut-off piston B tapered in conformity to the seat and having the transverse port *h* adapted to register with and effect communication between the induction-port and discharge-spout, when the valve is opened, and the lower solid portion adapt-

ed to rest between the induction-port and the discharge-spout, when the valve is closed, the stem connected to the upper end of the piston and extending through the upper end of the casing, and the coiled spring interposed between the lower end of the piston and the screw-cap *f*, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RICHARD SELLERS.

Witnesses:
ALFRED J. SELLERS,
FRANK W. HOWARD.