

H. SOFFE.
Faucets.

No. 148,520.

Patented March 10, 1874.

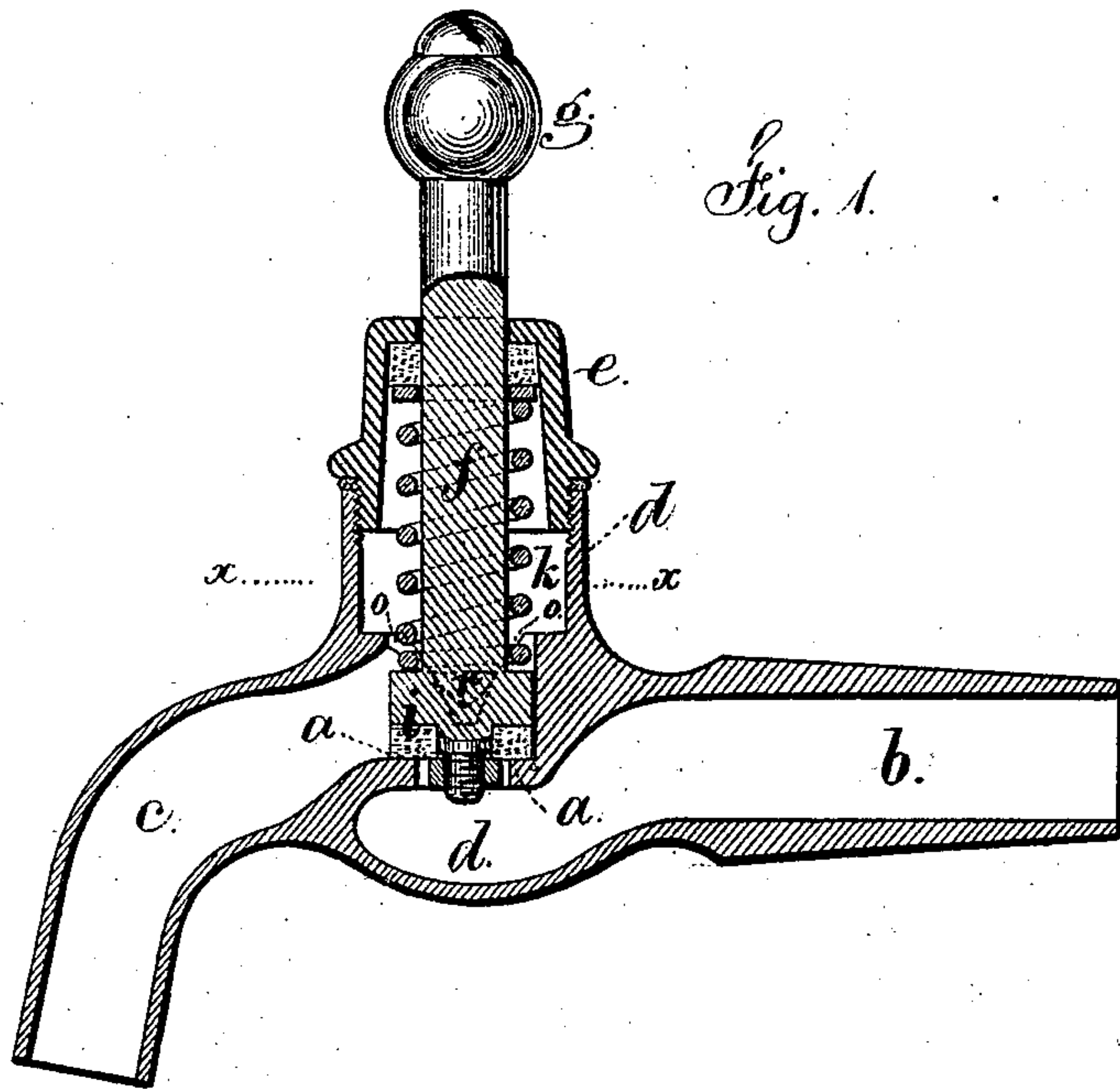


Fig. 1.

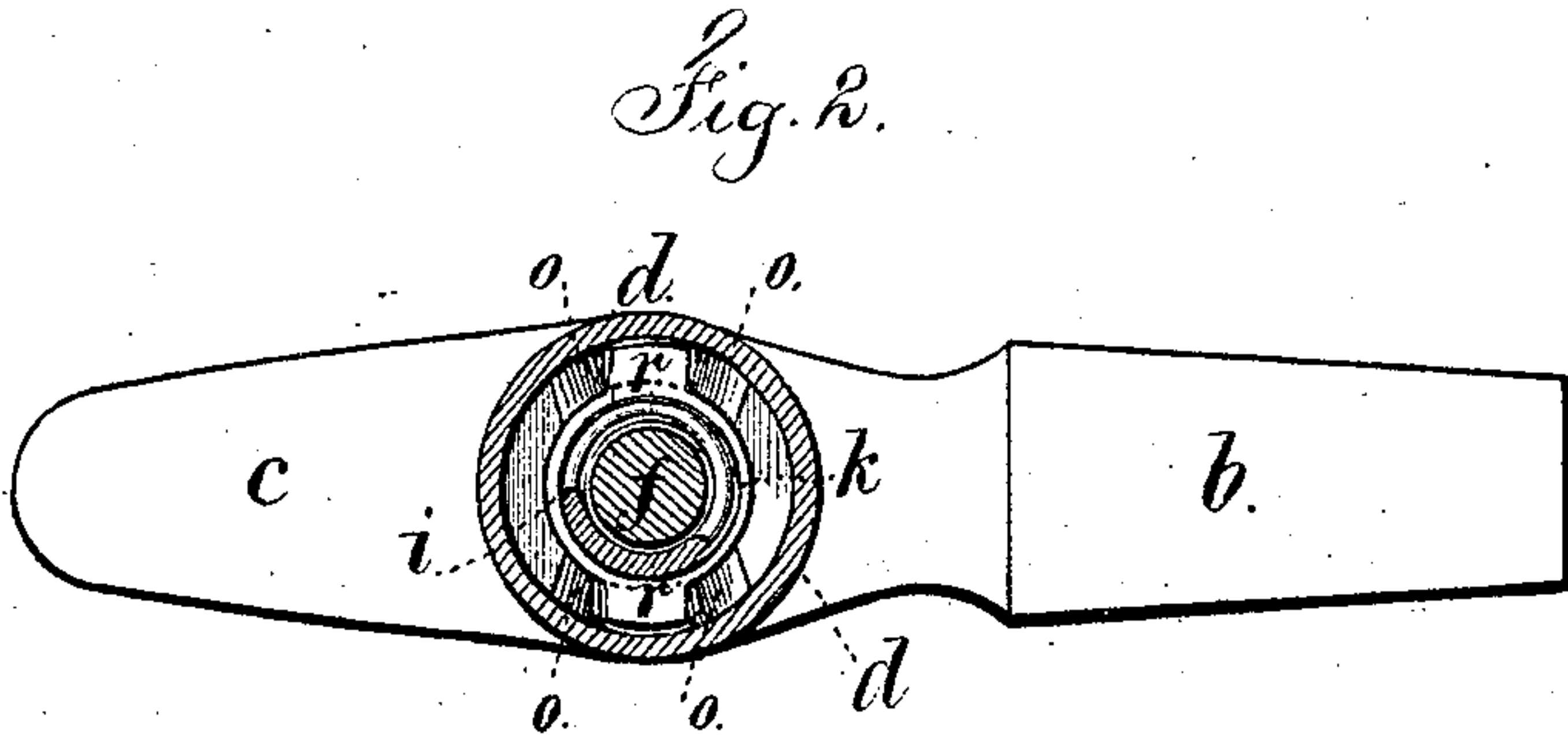


Fig. 2.

Witnesses

Chas. H. Smith,
Harold Snell

Inventor

Henry Soffe.

per Lemuel W. Serrell

att'y.

UNITED STATES PATENT OFFICE.

HENRY SOFFE, OF NEW YORK, N. Y.

IMPROVEMENT IN FAUCETS.

Specification forming part of Letters Patent No. **148,520**, dated March 10, 1874; application filed February 17, 1874.

To all whom it may concern:

Be it known that I, HENRY SOFFE, of the city and State of New York, have invented an Improvement in Faucets, of which the following is a specification:

Self-closing faucets have been made with a valve pressed to its seat by a spring, and inclines have been used for opening the valve, such inclines being upon a swivel connected with the handle, as in Letters Patent No. 17,604; or upon the outside of the cover, as in Letters Patent 142,192.

My invention is made for simplifying the construction, lessening the cost, and for preventing wear upon the inclines, or the parts moving upon them. At the same time, the inclines are out of sight, and there is nothing to catch or injure the hands or clothing that may come in contact with the faucet, and the spindle is only subjected to the strain due to its revolution, the opening and closing forces being concentrated upon the valve itself.

In the drawing, Figure 1 is a longitudinal vertical section of the improved faucet; and Flg. 2 is a sectional plan at the line *x x*.

The valve-seat *a* is between the inlet-pipe *b* and the discharge pipe or bib *c*, and at the bottom of the cylinder *d*, these parts being cast together. At the top of the cylinder *d* is the screw-cap *e*, with a packing or gland for the valve-stem *f*. The handle *g* is at the upper end of this stem *f*, and the valve *i* at the lower end, and this valve *i* is, preferably, made with an elastic face. The spring *k* closes the valve against the pressure of the liquid, said spring being around the stem *f* and within the barrel *d*. The inclines *o o* are within the barrel or cylinder *d*, and adjacent to the valve-seat. They are, preferably, double, so as to extend up above the inner open end of the tube forming the bib, and at opposite sides of the valve *i* are projections or fingers *r*, that extend above the inclined surfaces, and their ends touch, or nearly touch, the inner walls of the cylinder *d*.

It will now be evident that the spring *k* retains the valve to its seat, and holds the same firmly against the pressure of the water, and, when the valve and stem are turned by the handle *g*, the fingers *r* run up the inclines *o*, lifting the valve against the pressure of the spring, and, when the handle is released, the valve closes by the action of the spring *k*, so that the faucet is self-closing.

If the length of the cylinder *d* or spring *k* is such that the fingers *r* can be turned around until they reach a flat place that is formed at the top of the inclines *o*, then the valve can be left open after the parts have been turned around to this point, which is a convenience in faucets for wash-tubs, &c.

By this construction the inclines and fingers are lubricated by the liquid passing through the cock, these parts are out of sight, and the faucet can be made to resemble any ordinary screw or self-closing faucet; and the power of the spring to close the valve, and of the inclines to lift the valve, being applied to the valve itself, the valve-stem only requires to be sufficiently large to resist the torsion.

I am aware that inclines have been employed beneath the faucet-cap to push the valve down from its seat, the valve being at the opposite side of the seat to the cap; but this arrangement is costly, and difficult to construct.

I claim as my invention—

The faucet-cylinder *d*, with the seat *a* between the inlet-pipe *b* and pipe *c*, and made with the double inclines *o o* within the cylinder, and adjacent to the valve-seat, in combination with the valve *i* and the fingers *r* that project at the sides of the valve, the stem *f*, cap *e*, and spring *k*, the parts being arranged and operating as set forth.

Signed by me this 13th day of February, A. D. 1874.

HENRY SOFFE.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.