(No Model.)

T. H. WALKER.

SELF CLOSING FAUCET.

No. 275,099. Patented Apr. 3, 1883.

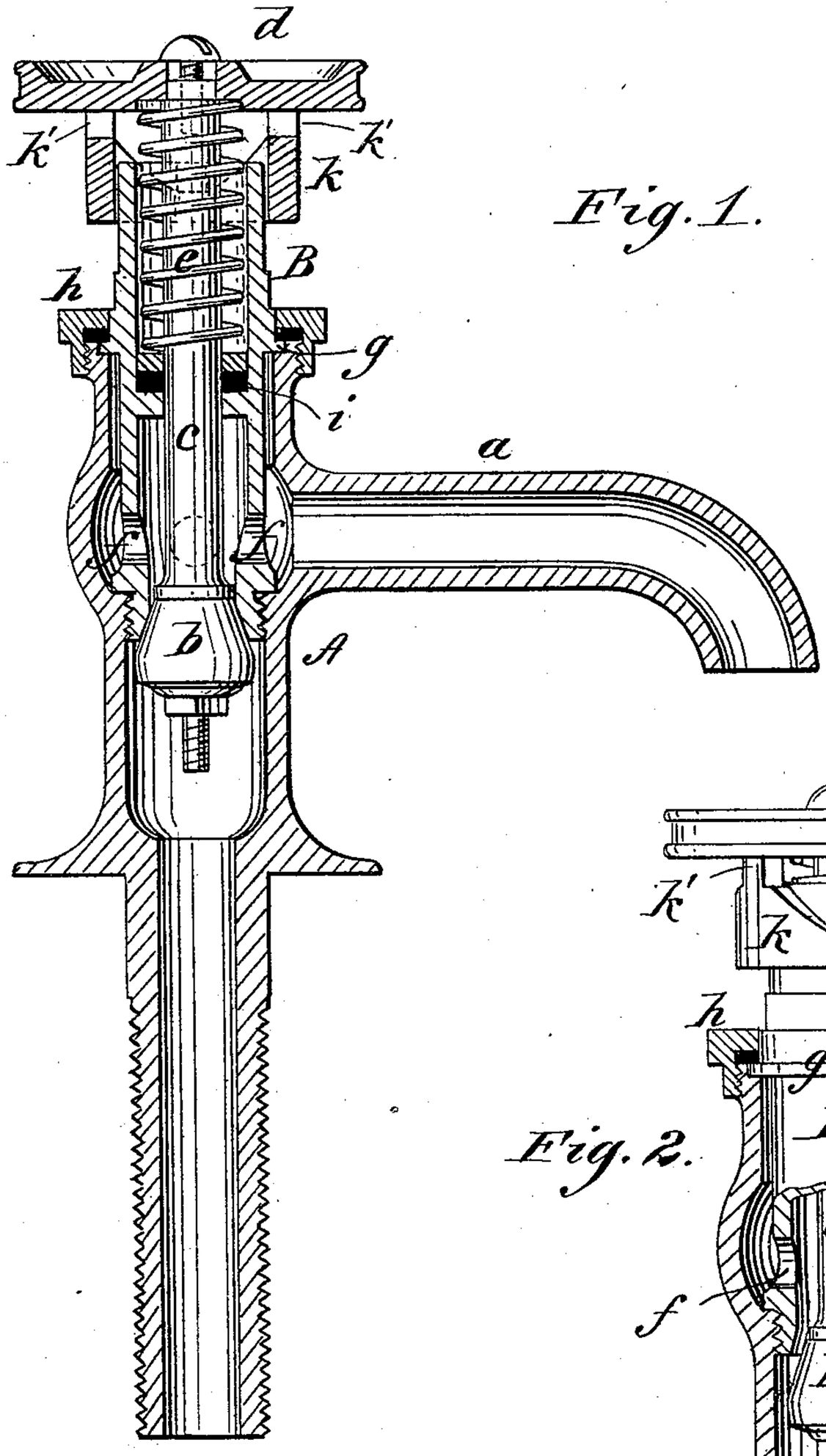

Fig. 1.

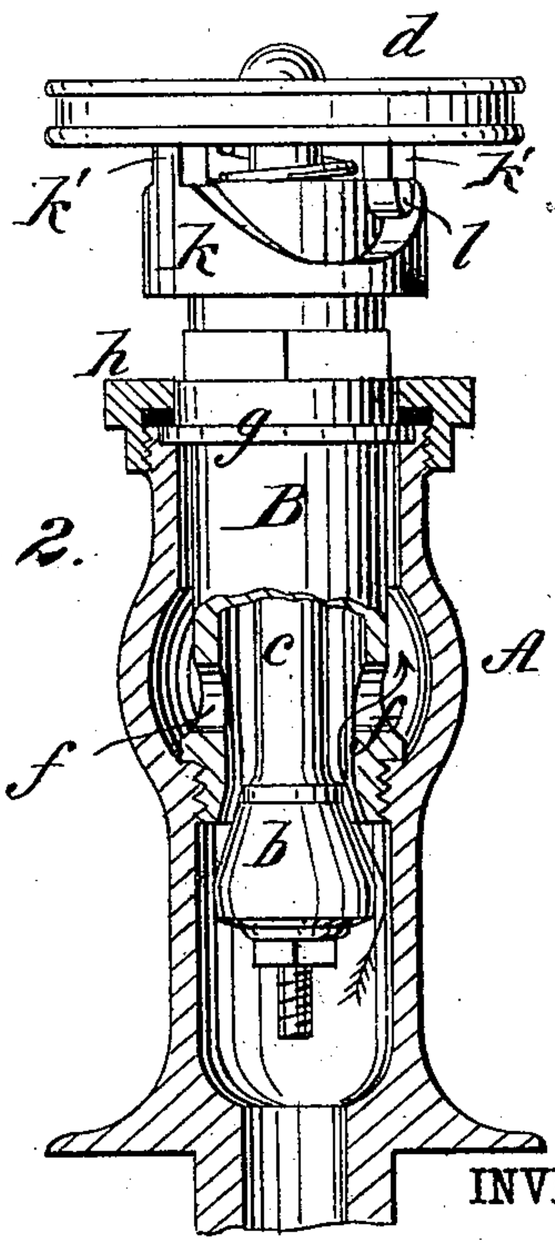

Fig. 2.

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UNITED STATES PATENT OFFICE.

THOMAS H. WALKER, OF KANSAS CITY, MISSOURI.

SELF-CLOSING FAUCET.

SPECIFICATION forming part of Letters Patent No. 275,099, dated April 3, 1883.

Application filed November 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. WALKER, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Self-Closing Faucet, of which the following is a full, clear, and exact description.

My improvements relate to self-closing faucets or bibs. In faucets of this class, where the valve is made to close against the pressure of the water, a spring of considerable power is required to keep the valve closed, and the spring is always under heavy tension. Where the valve has been made to close with the water-pressure, the objection has been to the great power required to open the valve when there is any considerable degree of water-pressure.

The object of my improvements is to overcome these difficulties, and also to furnish a faucet from which the working parts can be readily removed without disconnection of the main body of the faucet.

To these ends the invention consists in certain novel features of construction and arrangement of parts, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal section of a basin-faucet of my improved construction. Fig. 2 is a sectional side view of the same, showing the valve in the open position.

A is the body of the faucet, formed with the discharge-nozzle *a*.

B is an inner hollow cylinder, into the lower end of which is fitted the valve *b*, the stem *c* of the latter having the wheel *d* and spring *e*. The inner cylinder, B, is formed at its lower end as a seat for the valve *b*, and is attached by a screw-thread at its lower end to the inner surface of the body A, at a point below the outlet *a*, apertures *f* being provided in the cylinder for the escape of water when the valve is open. The cylinder B is formed with a flange, *g*, which sets into the rabbeted upper edge of the body A, and a cap, *h*, provided with a packing-ring, is secured upon the upper end of the body, so as to form a tight joint around the cylinder and hold the same securely in place. The stem *c* is packed by a ring at *i* between an inner flange on the cylinder and a loose washer around the stem, the washer also serving as a support for the end of the spring *e*. At the under side of the wheel *d* is a cam ring or sleeve, *k*, that is formed with double inclines at each side, between the lugs *k' k'*, by which the sleeve is connected to the wheel upon the cylinder, and the cylinder B is formed with lugs or projections *l*, projecting over the inclined surfaces of the cam-sleeve. By this construction the working parts can be readily removed from the body of the faucet, all that is necessary being to remove the cap *h* and unscrew the inner cylinder, which is formed above the cap with angular surfaces that allow the application of a wrench.

To put the faucet together, the cylinder B is first inserted and screwed down, thus insuring a tight joint. It will be seen that the valve closes upward with the pressure of the water, and in case of any leakage around the valve the leakage will pass to the outlet *a*, instead of escaping outside, as is often the case. To open the valve the wheel *d* is to be pressed downward, and the wheel being in direct and positive connection with the valve, the valve is readily opened by a light pressure of the hand. To open the valve gradually, or under a very heavy pressure, the wheel is to be given a partial turn to the right or left, and the cam-surfaces being thereby pressed against the lugs *l*, the wheel and valve-stem will be moved downward. The valve closing with the water-pressure insures a tight closing without any assistance from the spring, and the spring being only fitted to start the valve in closing, a light spring is all that is required. The turning movement of the wheel and stem is limited by the lugs *k'*, against which the holding-lug *l* takes at one side or the other.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the faucet-body A, of the cylinder B, provided with apertures, the valve *b*, the stem *c*, and spring *e*, substantially as shown and described.

2. In self-closing faucets, the combination, with the valve *b* and the stem *c*, of the wheel

d, the spring *e*, the cam *k*, and the cylinder B, provided with holding-lugs *l*, substantially as shown and described.

3. The faucet consisting of the outer cylinder or body, A, provided with the spout *a*, the inner cylinder, B, having the apertures *f* and the holding-lugs *l*, the valve *b*, having the stem *c*, spring *e*, fitted upon the valve-stem, and the wheel or handle *d*, provided with the cam *k*, substantially as and for the purpose set forth.

THOMAS H. WALKER.

Witnesses:
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