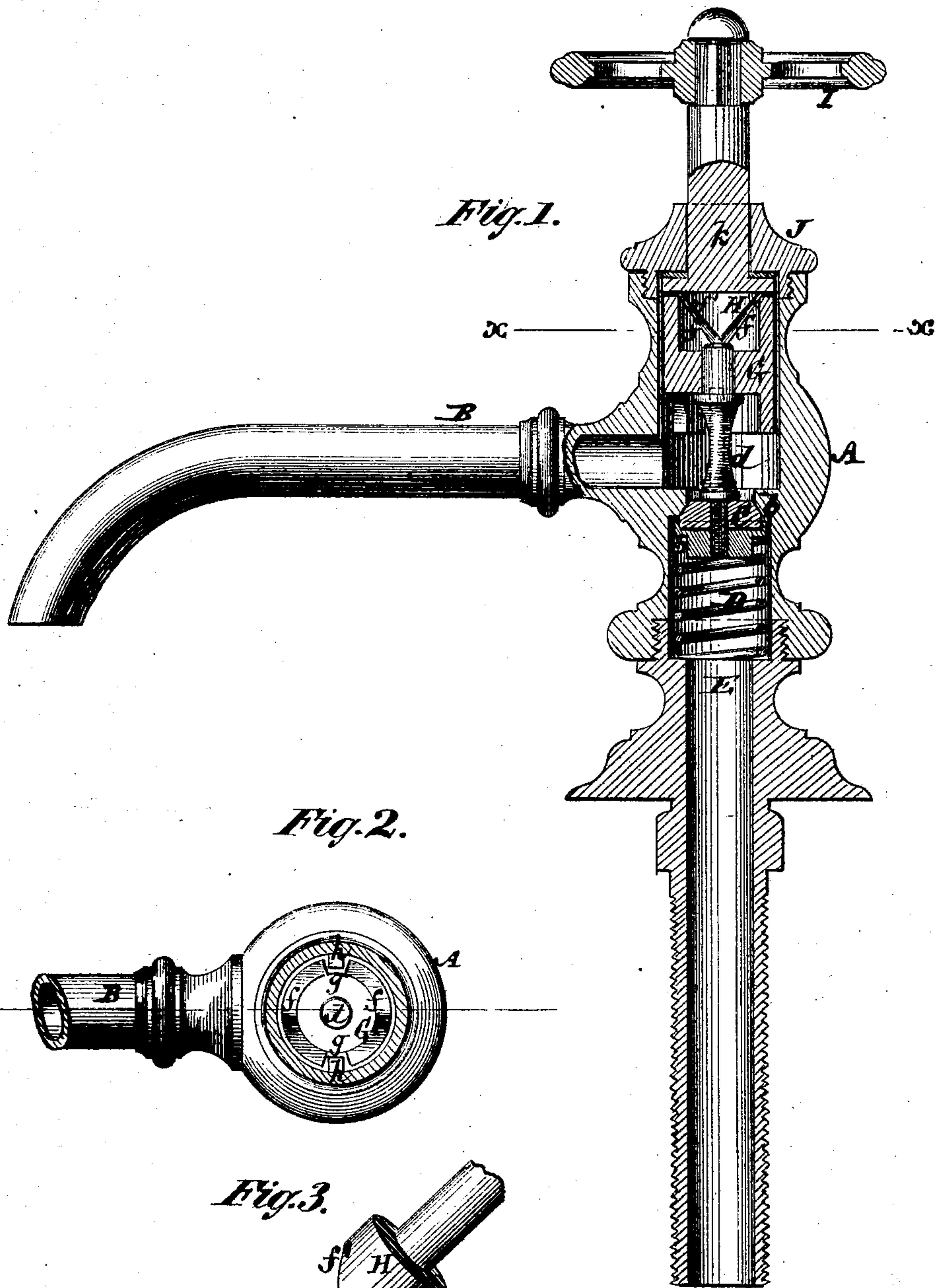


H. T. COLEMAN.  
Self-Closing Faucets.

No. 146,874.

Patented Jan. 27, 1874.



Witnesses.  
John Becker.  
Fred. Haynes.

H. T. Coleman  
by his Attorneys  
Brown & Allen



# UNITED STATES PATENT OFFICE.

HIRAM T. COLEMAN, OF WILLIAMSBURG, BROOKLYN, NEW YORK.

## IMPROVEMENT IN SELF-CLOSING FAUCETS.

Specification forming part of Letters Patent No. 146,874, dated January 27, 1874; application filed December 9, 1873.

*To all whom it may concern:*

Be it known that I, HIRAM T. COLEMAN, of Williamsburg, in the city of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Self-Closing Faucets, of which the following is a specification:

This invention consists in a self-closing faucet, which is free from all liability to stick when opened, and is capable of being opened either by direct downward pressure of the hand on the handle, or by turning the latter either to the right or to the left, as convenience or preference may suggest.

In the accompanying drawing, Figure 1 represents a mainly sectional vertical view of my improved self-closing faucet; Fig. 2, a horizontal section of the same on the line  $xx$ ; and Fig. 3, views in perspective of the two cams by which the faucet is opened.

Similar letters of reference indicate corresponding parts.

A is the body or receiving-chamber of the faucet, and B its nozzle, arranged to communicate with said chamber above a valve-seat,  $b$ , the valve C of which is preferably made of or faced with wood, and opens downward, and is closed, and also kept shut, by the action of a spring, D, and the pressure of the water or fluid on the under side of the valve. By making this spring a spiral one, as shown, with its lower end resting in a seat in the stand-pipe or supply-connection E, while its upper end simply receives a centering portion of the valve, the water or fluid is free to pass within, and laterally in all directions through, the spring without being choked or compressed by the valve, the stem  $d$  of which is on its reverse or upper side. On the upper end of the stem  $d$  of the valve is freely fitted or made to rest, without restricting the turning or self-accommodating action of the valve to its seat, a sleeve-cam, G, having opposite inclines  $f f$ , of an inverted V shape, on its upper edge, and having one or more grooves,  $g$ , down its side, arranged to fit corresponding ribs or projections  $h$  on the interior of the body A, above the valve, for the purpose of restricting the cam G to an up-and-down movement, in common with the valve, and to keep said cam

from turning. H is a similarly-shaped cam, but the converse of the cam G—that is, having its opposite V-shaped inclines  $f' f'$  on its under side, and so that they freely fit or enter within the inclines of the cam G. This cam H is fast to the lower end of a spindle or stem,  $k$ , carrying the handle or operating-wheel I, said stem passing freely through a gland, J, and so that it is at liberty both to move up and down therethrough, and to be turned therein in either direction—that is, to the right or the left, as desired; but care should be taken in the construction of the parts, especially of the cams, as regards the depth of their inclines, that in turning the cam H by the handle I the points of said cam can never ride onto the points of the cam G, otherwise the valve would be apt to stick when opened.

By the construction and combination of parts as described, it will be seen that the valve C is opened in a downward direction, either by pressing down directly on the handle I, or by turning it either to the right or left, so that the inclines of the cam H bear on the inclines of the cam G, which, not being at liberty to turn, must be depressed. On releasing pressure from or hold of the handle, however, the spring D operates quickly to close the valve, and to adjust the handle to its normal position.

This faucet, being capable of being opened by either one of three different actions—that is, either by bearing directly down on the handle, or by turning the latter to the right or to the left, cannot fail to be understood or worked by the most ignorant, and its self-closing action is positive and certain.

I claim—

The cam H on the lower end of the stem K, formed with the inclined sides  $f'$ , in combination with the vertically-sliding cam G, formed with V-shaped inclines  $f$ , arranged on the upper end of the valve-stem, so that the valve C may be depressed by turning the hand-wheel I in either direction, or by pressing downward thereon, substantially as shown and described.

H. T. COLEMAN.

Witnesses:

MICHAEL RYAN,  
FRED. HAYNES.