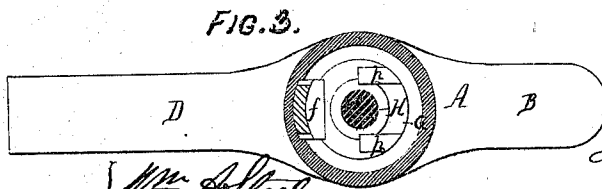
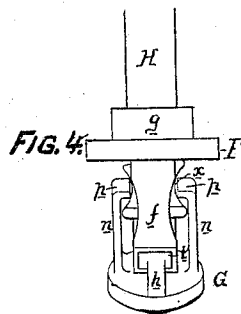
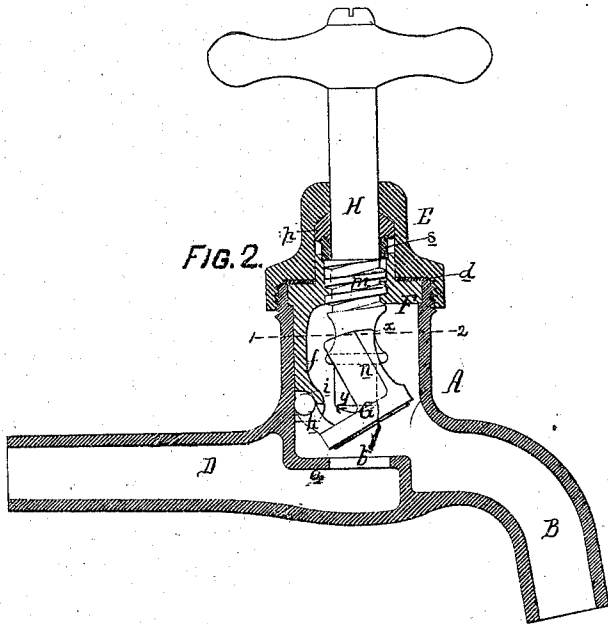
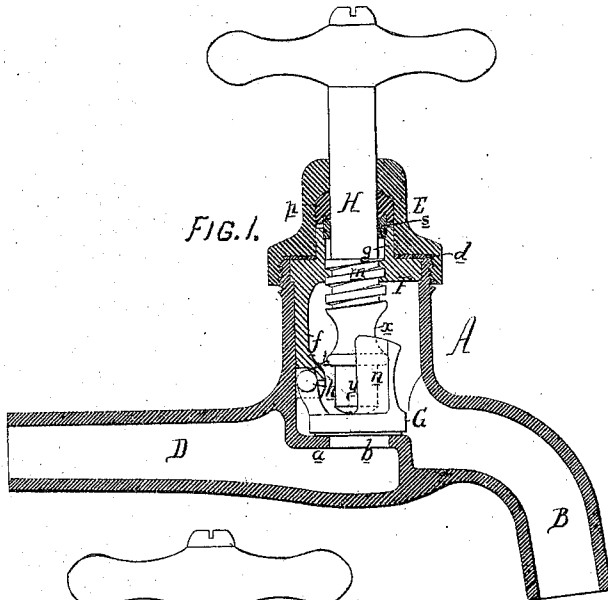


*J. Wilson,*

*Globe Valve.*

*No. 100431.*

*Patented Mar. 7. 1870.*



WITNESSES *Wm. Allen.*  
*Jno. B. Harding.*

*James Wilson*  
*by his attys.*  
*Howson and son*

# United States Patent Office.

JAMES WILSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO WILLIAM SIMON, OF SAME PLACE.

Letters Patent No. 100,481, dated March 1, 1870.

## IMPROVEMENT IN VALVE-COCKS.

The Schedule referred to in these Letters Patent and making part of the same

I, JAMES WILSON, assignor to WILLIAM SIMON, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improved Valve-Cock, of which the following is a specification.

### *Nature and Object of the Invention.*

My invention consists of a faucet or stop-cock, in which a valve is hinged to the interior of the casing, and controlled by a screw spindle, substantially in the manner described hereafter; also in so constructing, arranging, and adapting the parts to each other, that while a most efficient means of operating the valve is afforded, all costly joints and other fittings are dispensed with.

My invention further consists of improvements described hereafter in packing the faucet or stop-cock.

### *Description of the Accompanying Drawings.*

Figure 1 is a vertical section of a faucet, showing my improvements, and the valve depressed;

Figure 2, the same, showing the valve elevated;

Figure 3, a sectional plan on the line 1-2, fig. 2; and

Figure 4, a detached view of the valve and its adjuncts.

### *General Description.*

As regards external shape and interior arrangement, the body of the faucet is similar to those in common use, as it consists of the valve-chamber A, and curved branch, B, the interior of which is separated from the interior of the inlet branch B by a partition, *a*, which has the usual opening *b*, and which forms the seat for the valve G.

To the top of the casing A is adapted a screw cover, E, a packing-ring, *d*, within which bears on the upper edge of the casing, and also on a metal disk, F, fitted in a recess formed within the said casing.

From the under side of the disk F, and forming part of the same, projects an arm, *f*, which so fits in a vertical groove in the inside of the casing, as to prevent the disk from being turned therein.

This arm *f* terminates at its lower end in a pocket which forms the bearing for the T-shaped head of the projection *h* on the valve G, so that the latter is hung loosely to, but confined to its place within the casing by the said pocket.

H is the valve-spindle passing through the cover E, and through the disk F, which acts as the stationary nut for the screwed portion *m* of the valve-spindle.

Below the screw, the spindle is reduced in diameter, so that a recess, *x*, may be there formed, and the spindle terminates below this recess in a rounded end, *y*, which bears upon the valve under the circumstances described hereafter.

Two fingers, *n n*, project from the top of the valve,

and the bent ends *p p* of these fingers project into the recess *x* of the spindle, as shown in fig. 4, so that on unscrewing the spindle, the valve will be raised, as shown in fig. 2. On screwing down the spindle, however, its lower end will bear on the top of the valve, and depress the latter to its seat, as shown in fig. 1.

It should be understood that the valve is very loosely connected to the arm *f*, and also to the spindle, so that it may have sufficient freedom to bear truly with its face on the seat *a*.

Above the disk F is an annular projection, *g*, which enters the cover, and to this projection is fitted a metal ring, *s*, which, bearing against a suitable packing, *p*, lodged in the inside of the cover, will prevent all leakage between the latter and the spindle.

It will be seen that while the valve is properly hinged to the casing, or rather to the arm *f* within the same, and that while the valve is connected to the spindle, none of the usual connections, such as pins or well-fitted joints are resorted to, the T-headed projection *h* of the valve being introduced into the pocket *i* of the arm *f*, and the fingers *n n* being adjusted to the recess *x* of the spindle, before the introduction of the valve-spindle and disk into the casing, and after such introduction the valve is as effectually and permanently hinged to the casing and connected to the spindle as if more costly appliances had been used.

Although I have referred to my invention as applied to faucets, it will be evident that the mode described of hinging the valve within the casing, and placing it under the control of the spindle, may be applied to stop-cocks generally.

### *Claims.*

1. A faucet or cock in which the valve is hinged at one edge within the casing, substantially as described, and is connected to a rotating spindle so as to be raised and depressed by the latter as specified.
2. The combination with the casing, of a detachable disk, F, and a valve, G, hung to a projection on the disk, substantially as specified.
3. The combination of the disk F, casing to which the disk is fitted, cover E and packing as set forth.
4. The rings *s* interposed between the projection *g* and packing *p*, as described.
5. The valve G, hung at one side within the casing, having bent fingers *n n*, and operating in combination with the recessed screw spindle as specified.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES WILSON.

Witnesses:

WM. A. STEEL,  
LOUIS BOSWELL.