

A. L. Pennock,

Stop Cock.

No. 106,867.

Patented Aug. 30. 1870.

Fig. 1.

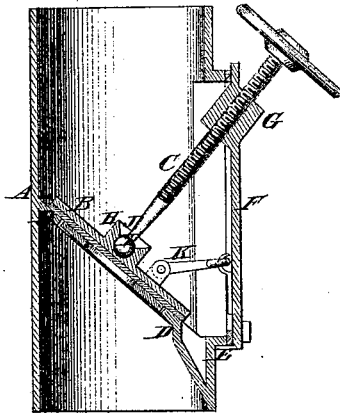
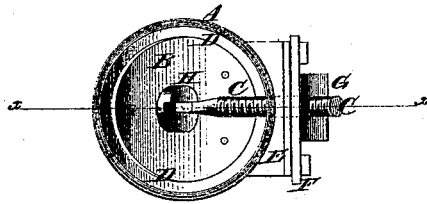


Fig. II.



Witnesses:

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ABRAHAM L. PENNOCK, OF UPPER DARBY, PENNSYLVANIA.

Letters Patent No. 106,867, dated August 30, 1870.

IMPROVEMENT IN OPERATING VALVES.

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

To all whom it may concern:

Be it known that I, ABRAHAM L. PENNOCK, of Upper Darby, in the county of Delaware and State of Pennsylvania, have invented a new and useful Improvement in Operating Valves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in operating valves, whereby they may be arranged in short tubes of small diameter, and removed from the tube with great facility; and

It consists in opening and closing the valve by means of a screw valve-stem connected with the valve by a ball-and-socket joint, the socket being slotted, and the valve being connected with the tube by means of a hinged arm, the whole arranged and operating as hereinafter more fully described.

In the accompanying drawing—

Figure 1 is a longitudinal section of the arrangement, on the line *xx* of fig. 2.

Figure 2 is an end view, looking down upon the valve.

Similar letters of reference indicate corresponding parts.

A represents the tube in which the valve is placed.

B is the valve.

C is the valve-stem.

D is the valve-seat.

The seat is an oval plate with an oval orifice placed at an angle of forty-five degrees, more or less, in the tube, as represented in the drawing.

Opposite the valve-seat a slot or opening is made,

through the tube, around the edge of which there is a flange, E, tightly fitted and soldered to the tube, to which flange a covering-plate, F, is fitted.

Attached to this plate is the nut G of the screw valve-stem.

On the back of the valve there is a socket, H, and on the end of the valve-stem there is a ball, I, which engages with the socket.

J is a slot in the socket, which allows the valve to rise from its seat when the stem is unscrewed.

K is an arm, which is hinged to the valve at one end, to the plate F at the other end.

This hinged arm guides the valve and keeps it in the right position in opening and closing.

By this arrangement the valve may be drawn back or opened so as to leave the tube nearly unobstructed.

The plate F is fastened on by screws, so that it may be taken off and the valve removed at pleasure.

L is a hand-wheel on the valve-stem for operating the valve.

By hanging the valve and operating it in this manner, it is made to work in a shorter tube than it could if it were lifted perpendicularly from its seat.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The flanged tube A, valve-seat D, valve B, stem C, and covering-plate F, combined, constructed, and relatively arranged, as and for the purpose described.

ABRAHAM L. PENNOCK.

Witnesses:

W. C. GRAY,

J. T. TEMPLE.