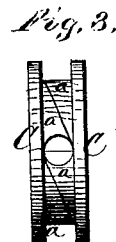
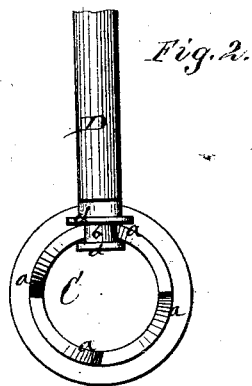
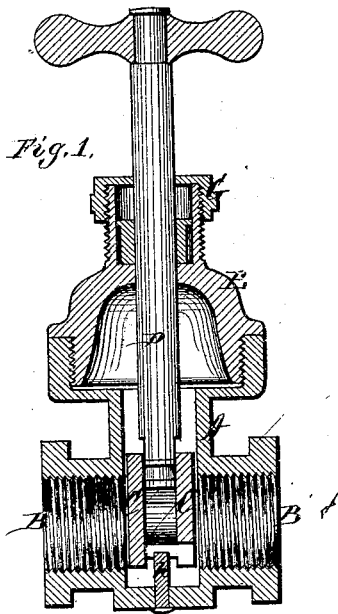


R. PILLING.
STOP VALVE.

No. 110,391.

Patented Dec. 20, 1870.



Witnesses
Jas. A. Ellis.
J. V. White

Inventor
R. Pilling
J. H. Alexander
Att'y.

United States Patent Office.

ROBERT PILLING, OF WATERFORD, NEW YORK.

Letters Patent No. 110,391, dated December 20, 1870.

IMPROVEMENT IN STOP-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, ROBERT PILLING, of Waterford, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Stop-Valves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a stop-valve for water, steam, or gas, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section of the entire stop-valve;

Figure 2 is an inside view of one of the gates; and Figure 3 is a plan view of the gates put together.

A represents the casing, having two openings, B B, for pipes to be screwed into, said openings being directly opposite each other.

O O represent two circular gates, provided on their adjoining or inner sides with ratchet-teeth, *a a*, which mesh into each other, so that, when the two gates are put together, their outer surfaces will be parallel with each other.

Two of these teeth, that is, one on each gate, are cut out, so that, when put together, there will be formed a round hole, as shown in fig. 3, into which hole is

passed a tenon, *b*, upon the lower end of the stem D, a collar, *d*, being formed on the stem above and below said tenon.

The stem D, passing upward, goes through a bonnet, E, and stuffing-box, G, on top of the casing A, and may be operated either as a screw or as a sliding stem, as may be desired.

At the bottom of the casing A is a wedge-shaped projection, *h*, which, when the gates close, passes between two of the ratchet-teeth, and, as a consequence, expands the ratchet-gate, making their plain surface close the openings B B, rendering them perfectly tight for water, steam, gas, or any liquids where valves are used.

Having thus fully described my invention,

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

1. In combination with the ratchet-gates O O, the wedge-shaped projection *h*, for the purpose of expanding the gates, substantially as herein set forth.

2. The combination of casing A, bonnet E, stuffing-box G, ratchet-gates O O, wedge-shaped projection *h*, and stem D, all constructed and arranged to form a stop-valve, as set forth and described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

ROBERT PILLING.

Witnesses:

I. C. ORMSBY,
GILES S. BEISBIE.