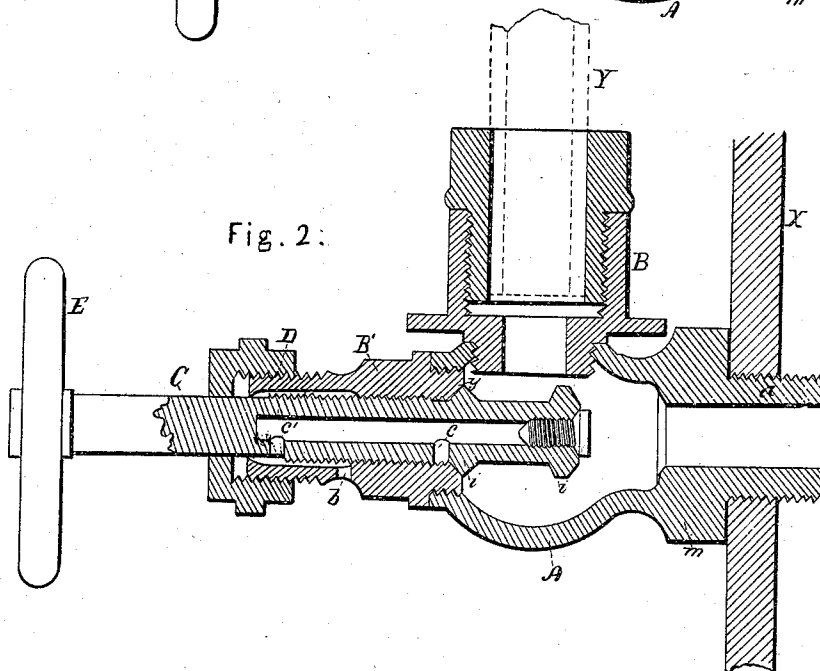
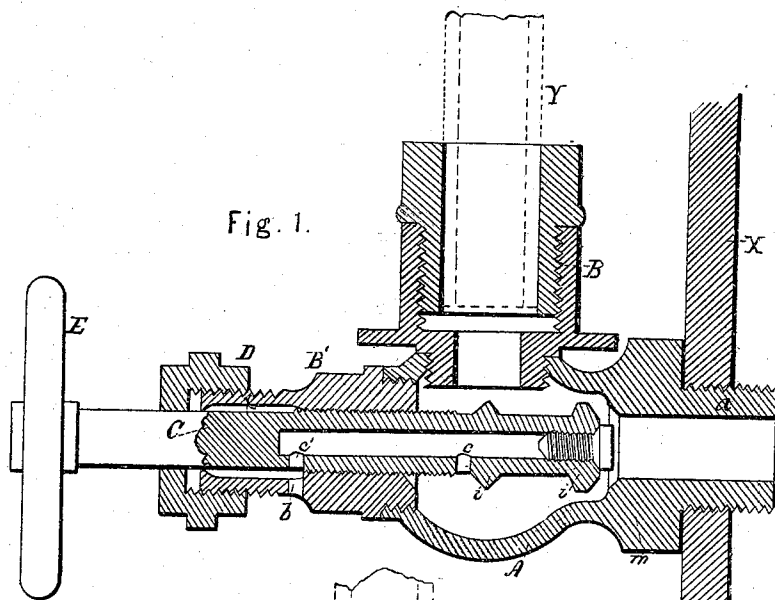


I. Savill.
Valve for Water Gauge,
N^o 58, 179, *Patented Sept. 18, 1866.*



Witnesses:
Wm. H. H. H.
J. H. H. H.

Inventor:
I. Savill
By his Atty
H. H. H.

UNITED STATES PATENT OFFICE.

THOMAS SAVILL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
C. JONES & CADBURY, OF SAME PLACE.

IMPROVEMENT IN LOW-WATER DETECTERS FOR STEAM-GENERATORS.

Specification forming part of Letters Patent No. 58,179, dated September 18, 1866.

To all whom it may concern:

Be it known that I, THOMAS SAVILL, of Philadelphia, Pennsylvania, have invented an Improved Valve for Water-Gages; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of a hollow spindle with certain valves and openings, in combination with a valve-chest with seats and an opening, the whole being constructed and operating substantially as described hereinafter, and forming a stop-valve, from which the sediment which is apt to collect in the valve-chests of water-gages can be readily discharged.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a sectional view of a valve for water-gages with my improvement, and Fig. 2 the same with the operating parts in a position differing from that shown in Fig. 1.

A is the valve-chest, into which screw the two branches B and B', and at the end of the chest is a tubular projection, *a*, to screw into the plate X of a steam-boiler below the low-water line of the same. Into the branch B projects the lower end of the usual glass tube Y, (shown by dotted lines,) the upper end of which is secured in the ordinary manner to a branch projecting from a valve-chest communicating with the steam-space of the boiler. Through the branch B' extends a hollow screwed valve-spindle, C, and on the outer end of the branch is a screw-cap, D, between which and the end of the branch is confined any suitable packing-material. Near the outer end of the branch B' is an opening, *b*, which communicates with a chamber, *x*, in the interior of the branch, and in the hollow spindle are two holes, *c* *c'*.

On the outer end of the spindle C is a suitable hand-wheel, E, and at the inner end are two valves, *i* *i'*, the former being adapted to a conical seat, *y*, at the inner end of the branch B', and the latter to a conical seat, *m*, in the steam-chest A.

When it is desired to cleanse the valve-chest the spindle C is turned by means of the hand-wheel E until the opening *c'* communicates with the chamber *x*, when the water in the chest will rush through the opening *c*, through the spindle, through the opening *c'* and chamber *x*, from which it escapes through the opening *b*, the sediment collected in the bottom of the chest being carried off with the water. When the chest has been thus thoroughly cleaned the spindle is turned until the valve *i* is brought against its seat *y*, when the further discharge of water will be prevented. Should it be necessary to remove the tube Y, the spindle is turned until the valve *i'* is brought against its seat *m*, the communication between the upper valve-chest and the boiler being also closed, when the tube can be detached.

Although I prefer the use of the chamber *x*, it may, if desirable, be dispensed with, the opening *c'* being brought opposite the opening *b* when the contents of the chest have to be discharged.

I claim as my invention and desire to secure by Letters Patent—

The hollow spindle C, with its valves and openings, in combination with the valve-chest A, its valve-seats, and opening *b*, the whole being constructed and operating substantially as and for the purpose specified.

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

THOMAS SAVILL.

Witnesses:

CHARLES E. FOSTER,
JOHN WHITE.