

J. Broughton,
Steam Gage Cock,
No 51,418, Patented Dec. 12. 1865.

Fig. 1

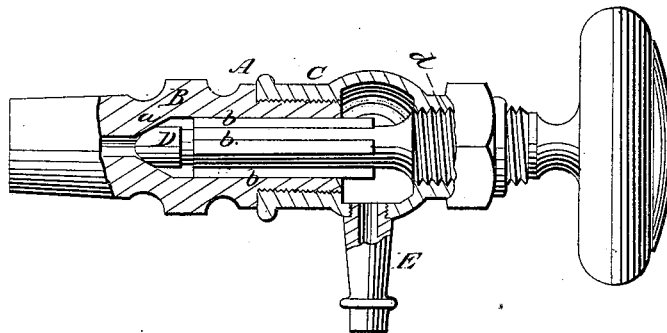
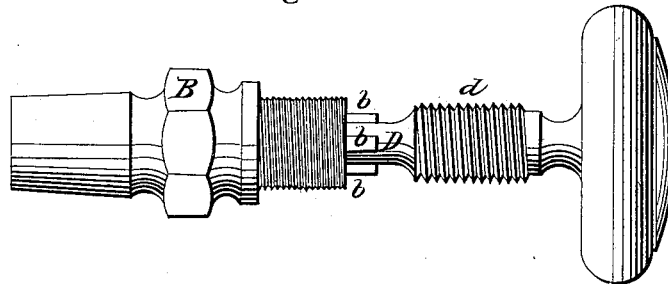


Fig. 2



Witnesses.

M. M. Livingston
E. L. Tappan

Inventor.

John Broughton

UNITED STATES PATENT OFFICE.

JOHN BROUGHTON, OF NEW YORK, N. Y.

IMPROVEMENT IN GAGE-COCKS.

Specification forming part of Letters Patent No. 51,418, dated December 12, 1865.

To all whom it may concern:

Be it known that I, JOHN BROUGHTON, of No. 41 Centre street, in the city, county, and State of New York, have invented a new and Improved Gage-Cock; 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 drawings, forming part of this specification, in which—

Figure 1 represents a sectional side elevation of this invention. Fig. 2 is a similar view of the same when the body or globe is detached and the valve inserted in its seat for the purpose of regrinding.

Similar letters of reference indicate like parts.

This invention consists in making the body or globe of a gage-cock detachable from that part containing the seat, and in applying to the stem of the valve a series of wings in such a manner that by removing said detachable globe the operation of regrinding the valve is considerably facilitated, and can be performed without removing the shank from the boiler, the wings on the stem serving as guides, which keep the valve square in its seat while being ground.

A represents a gage-cock the shell of which is composed of two distinct parts—viz., the shank B and the body or globe C. The shank B is provided on both ends with screw-threads, one of which is intended to screw into the boiler and the other to receive the globe C, and said shank is bored out to form the seat *a* for the valve D. Said seat is at some distance from the end of the shank, and the stem of the valve is provided with a series of wings, *b*, which, when the valve is inserted into its seat, form guides to keep the valve square.

The body or globe C is provided with a nip-

ple, E, which is secured to it by a screw-thread or any other suitable means, and it screws at one end on the shank B, as previously stated, whereas its other end is furnished with a screw-thread to receive the screw *d* on the valve-stem, as clearly shown in Fig. 1 of the drawings. When the body or globe C is secured to the shank B and the valve is inserted, my gage-cock operates precisely like other gage-cocks of the ordinary construction.

By turning the handle in one direction the valve is removed from the seat and the water or steam from the boiler rushes out through the nipple C, and by turning the handle in the opposite direction the valve is forced down in its seat and the cock is closed.

By detaching the body or globe from the shank and from the valve-stem, the operation of regrinding is greatly facilitated, the valve being free to rotate in either direction, while at the same time the wings on its stem form perfect guides or supports to keep the same square to its seat.

During the act of grinding the valve is rotated by the handle, thus dispensing with the use of screw-drivers or other tools, and the operation is so simple and can be so easily and quickly performed that parties using my cock need never be troubled or annoyed by leakage.

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

The detachable body or globe C, in combination with the shank B of a gage-cock, and with a valve the stem of which is provided with wings *b*, or their equivalents, substantially as and for the purpose set forth.

JOHN BROUGHTON.

Witnesses:

M. M. LIVINGSTON,
C. L. TOPLIFF.