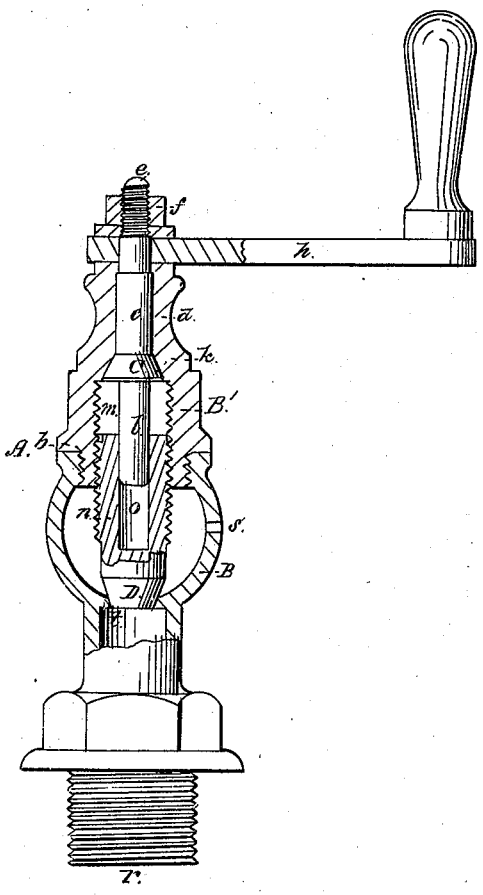
J. C. SCHAEFER.

STEAM GAGE COCK.

No. 52,452. Patented Feb. 6, 1866.



Witnesses.

Francis D Pastorius

John Anderson.

Inventor:

John C. Schaefer.

UNITED STATES PATENT OFFICE.

JOHN C. SCHAEFER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STEAM GAGE-COCKS.

Specification forming part of Letters Patent No. **52,452**, dated February 6, 1866.

To all whom it may concern:

Be it known that I, JOHN C. SCHAEFER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented an Improved Self-Packing Steam-Valve and Gage-Cock; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in using in a gage-cock a self-packing valve or plug as a substitute for the ordinary packing now used for making it steam-tight, and combining it with the try-cock in such manner as is hereinafter shown.

To enable skilled mechanics to make and use my invention, I will proceed to describe its construction and operation.

The accompanying drawing is a longitudinal section.

A is a gage-cock, formed in two parts, B B′, which are joined at *b*, the part B screwing into and communicating with the boiler. The cap or part B′ contains the conical or packing valve C, the stem *c* of which passes steam-tight through the neck *d*. It is furnished with a screw, *e*, and nut *f*, between which nut and the top of the cap the lever *h* or other suitable mechanical agent for giving rotary motion intervenes. When the nut is screwed down on the lever the valve is held tight in its seat *k* and the gage-cock made steam-tight, thus obviating the use of the ordinary packing, which is so liable to be burned or destroyed by the heat from the steam.

A square shank, *l*, is attached to the valve C, either cast to it or otherwise. The cap below the valve-seat *k* is enlarged and has a screw, *m*, cut in the opening, into which the screw-stem *n* of the try-valve D is screwed. The shank *l* fits into a corresponding socket, *o*, in the stem *n*.

It will be seen that when a rotating motion is given to the shank *l* by the lever the screw-stem *n* is also caused by the shank to rotate and is screwed either up or down, and the try-cock or valve D is opened or closed according to the direction given to the lever.

My gage-cock can be used for a steam stop-valve by arranging the channel *r* and the vent *s* for pipe-connections, the try-cock D being attached to the cap.

The valve-seat *t* can be very readily repaired without detaching the part B from the boiler.

I do not confine myself to a square shank and socket, but will construct them of any convenient number of sides.

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

The packing-valve C, the shank *l*, and the socket *o* in the stem *n*, substantially as herein specified and described.

In testimony whereof I hereunto sign my name to this specification in presence of two subscribing witnesses.

JOHN C. SCHAEFER.

Witnesses:

FRANCIS D. PASTORIUS,

W. W. DOUGHERTY.