D. JENKINS.

Gage-Cocks for Steam-Boilers.

No. 203,736. Patented May 14, 1878.

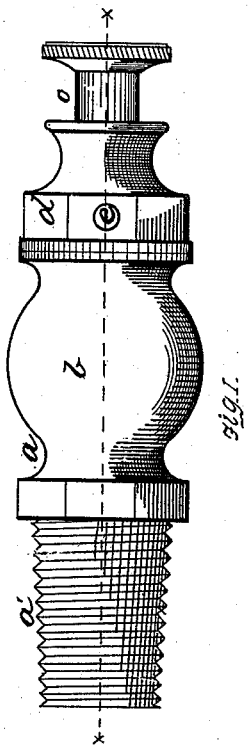

Fig. 1.

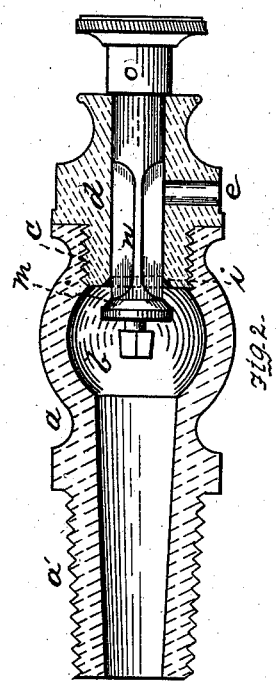

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

DAVID JENKINS, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES CARSON, OF SAME PLACE.

IMPROVEMENT IN GAGE-COCKS FOR STEAM-BOILERS.

Specification forming part of Letters Patent No. **203,736**, dated May 14, 1878; application filed April 12, 1878.

To all whom it may concern:

Be it known that I, DAVID JENKINS, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Gage-Cocks for Steam-Boilers; and I do hereby declare the following to be full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is an elevation, and Fig. 2 a longitudinal section, of a gage-cock embodying my invention.

Like letters refer to like parts wherever they occur.

My invention relates to the construction of gage-cocks for steam-boilers.

In gage-cocks as ordinarily constructed the valve-seat is formed on the inner end of the tube, and the valve and its seat are consequently both within the boiler. When the water in the boiler falls below the gage there is a tendency of the sediment to accumulate on the valve and its seat and to corrode the same, giving rise to sticking of the valve, and necessitating the frequent regrinding of both seat and valve. When the valve and seat are to be ground the whole gage-cock has to be removed, which is always more or less troublesome to do.

The object of the present invention is to obtain such a construction as will avoid the difficulties specified.

I will now proceed to describe my invention, so that others skilled in the art to which it appertains may apply the same.

In the drawing, *a* indicates the stem or tube of the gage-cock, threaded on its outer surface, as at *a'*, for insertion in the boiler in the usual manner. The tube *a* is enlarged or otherwise properly shaped to form a water-chamber, *b*, back of the valve, and is threaded internally, as at *c*, to receive the valve-section *d*. *d* indicates the valve-section, formed detachable from the stem or tube *a*, threaded at one end for attachment thereto, and provided with the usual outlet or port *e*. The inner end of valve-section *d* is properly ground to form valve-seat *i*, and a valve, *m*, with stem *n* extending through valve-section *d*, is employed. This valve *m* may have its stem fluted in the usual manner, and is secured by the screw-knob *o*.

The devices are employed as follows: The stem or tube *a* of the gage-cock is screwed into the boiler in the ordinary way, the valve-section being in position, as shown in the drawing. The pressure in the boiler will hold the valve on its seat, and should the water of the boiler fall below the gage-cock the chamber *b* will retain sufficient to prevent the sediment from collecting or hardening on the valve and seat and corroding the same.

When it is desirable to grind the valve-seat or valve, the valve-section *d* can be unscrewed without removing the main tube (or portion of the gage-cock) *a* from the boiler, and after repairing it can be as easily replaced.

Having thus set forth the nature and advantages of my invention, what I claim is—

1. The gage-cock provided with the detachable valve-seat section and valve, the valve and its seat being constructed substantially as described, so that the pressure in the boiler shall keep the valve upon its seat.

2. The gage-cock herein described, having the stem-section *a*, provided with the water-chamber *b*, in combination with the detachable valve-section *d* and the valve *m*, the whole constructed and operating substantially as specified.

In testimony whereof I, the said DAVID JENKINS, have hereunto set my hand.

DAVID JENKINS.

Witnesses:
R. H. WHITTLESEY,
F. W. RITTER, JR.