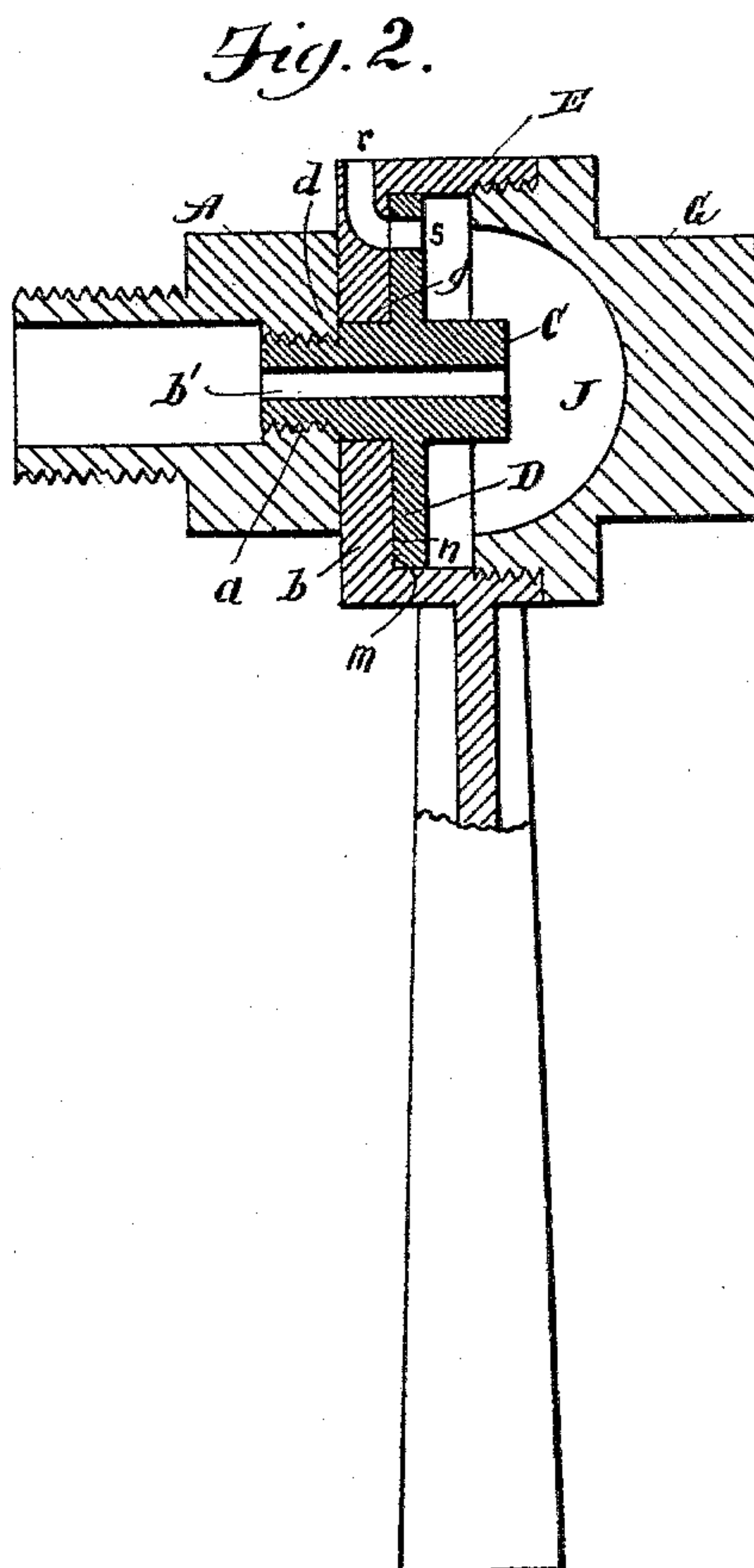
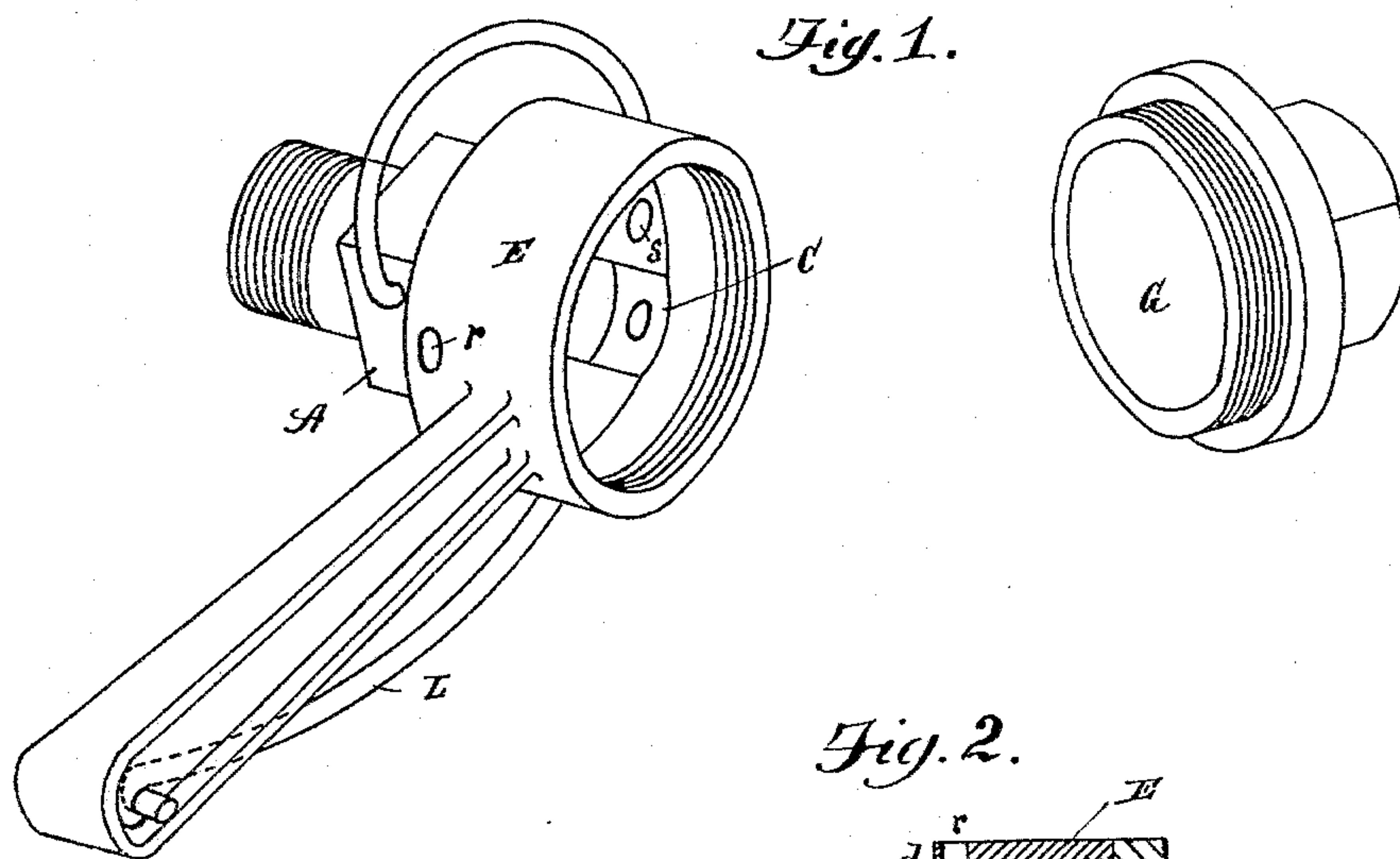


(No Model.)

F. A. HUETT.  
GAGE COCK.

No. 597,906.

Patented Jan. 25, 1898.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

FREDERIC A. HUETT, OF DETROIT, MICHIGAN.

## GAGE-COCK.

SPECIFICATION forming part of Letters Patent No. 597,906, dated January 25, 1898.

Application filed July 30, 1897. Serial No. 646,458. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERIC A. HUETT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Gage-Cocks for Steam-Boilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to gage-cocks for steam-boilers, and has for its object to provide certain new and useful improvements whereby the full pressure of steam from the boiler upon which the gage-cock is secured is brought to bear upon the valve to hold it into close engagement with its seat and thus cause the wearing parts to grind to a perfect surface as the valve is operated.

The invention consists in the construction and arrangement of the parts to be hereinafter described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view with the cap removed, showing the interior of the hollow valve-head. Fig. 2 is a sectional elevation of the parts assembled.

Like letters of reference refer to corresponding parts throughout the figures.

A indicates the main body or holding-block, which is cored out to form a steam passage-way therethrough. At one end this block is externally threaded to engage the boiler and at the opposite end provided with the internal thread *a*.

D is a valve-seat formed integral with swivel-pin C and in a plane at right angles to the axis thereof. One end of this pin is threaded to engage the internal threads in the outer end of the block A and is adapted to be turned down snugly to a shoulder at *d*, fixing the parts A and C with relation to each other.

E is a hollow valve-head within which the valve-seat and swivel-pin are received, and through the central point of the end *b*, which forms the valve-face, there is an opening arranged to journal freely upon the shank *g* of the swivel-pin. The opposite end of the head

is closed by means of the screw-cap G, which is concaved upon the under side to form with the hollow head the steam-chamber J. The swivel-pin C is also cored at *b'* to form a continuous steam passage-way from the boiler to the chamber J, and as the steam accumulates therein its force is exerted within the hollow valve-head to bring the valve-face *m* and its seat *n* into steam-tight engagement, so that as the handle E is actuated to rotate the valve the engaging faces are constantly being ground to a perfect fit with each other.

The outlet-ports *r* s are provided in the stationary seat D and rotary valve E and are so located as to register with each other at one point in the circumference of the said valve. Thus it will be seen that to close the valve the port *r* is turned away from the port *s*, compelling the steam in order to escape to pass between the ground faces of the valve and its seat against the pressure of steam within the chamber J. A spring L may be provided, if desired, to automatically return the valve to a closed condition after it has been opened. The one I have shown consists of a coil with one end engaged to the body A and the other end secured to the lever.

It will be obvious to those familiar with the art that some slight changes and modifications may be made in the specific construction and arrangement of the various parts herein shown and described without materially affecting the results, and I desire to have it understood that although I have preferred to illustrate my invention in the particular form shown I do not limit myself thereto.

Having thus described my invention, what I claim is—

1. In a gage-cock for steam-boilers, the combination of a main body having a steam-passage therethrough, a hollow valve-head provided with a steam-port swiveled upon said body, and a valve-seat having a port adapted to register with the port in said hollow valve-head, and a steam-passage arranged to admit steam into said hollow head whereby the valve-face and valve-seat are held together in a steam-tight contact, substantially as described.

2. In a gage-cock for steam-boilers, the combination of a main body having a steam-passage therethrough, a hollow valve-head hav-



ing a handle formed integral therewith, said head provided with a steam-port and swiveled upon said body, a swivel-pin having a valve-seat formed integral therewith, and received  
5 within said hollow head and adapted to form a journal upon which said valve turns, said valve-head and valve-seat being provided with ports to register with each other at one point in the circumference of said valve, said  
10 swivel-pin being provided with a steam pas-

sage-way, whereby said steam is conducted into said hollow head, and means whereby said valve is automatically closed, substantially as described.

In testimony whereof I affix my signature 15 in presence of two witnesses.

FREDERIC A. HUETT.

Witnesses:

J. F. ROUSTON,

FRANK AVERY.