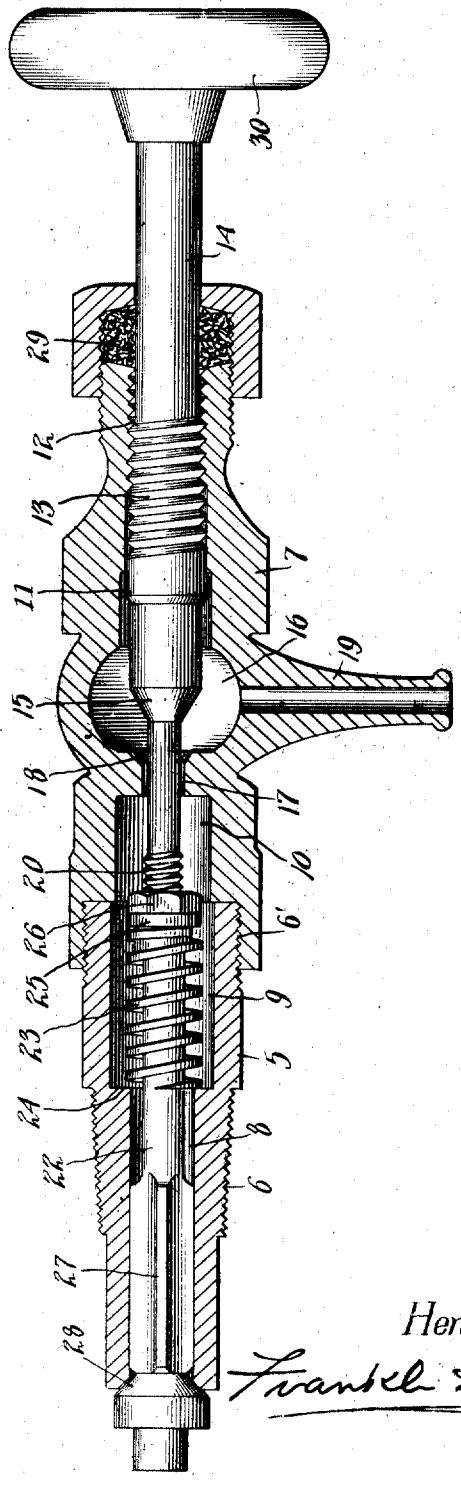
H. A. VORMENG.

GAGE COCK.

APPLICATION FILED APR. 19, 1917.

1,252,206. Patented Jan. 1, 1918.



Witness

C. K. Reichenbach.

J. N. Sherwood

Inventor

Henry A. Vormeng.

Frankel & Hough

Attorney

UNITED STATES PATENT OFFICE.

HENRY A. VORMENG, OF ROCHESTER, NEW YORK.

GAGE-COCK.

1,252,206. Specification of Letters Patent. Patented Jan. 1, 1918.

Application filed April 19, 1917. Serial No. 163,266.

To all whom it may concern:

Be it known that I, HENRY A. VORMENG, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Gage-Cocks; 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, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in valves and particularly to that type of valve used in connection with steam boilers.

The object of the present invention is the provision of a combination main valve and auxiliary valve which will permit of the removal of the main valve for the purpose of grinding the valve seat thereof without necessitating the draining of the boiler to which the valve is applied.

In the drawings the figure illustrates a longitudinal sectional view through a valve constructed in accordance with the present invention.

Referring to the details of the drawings, 5 indicates the inner section of the valve casing which is provided with screw threads 6 adjacent its inner end, to permit the same to be positioned in a boiler, while the threads 6′ adjacent the outer end thereof permit the same to be connected to the outer section 7 of the valve casing to be hereinafter more fully described.

The inner section 5 is provided with a central bore 8, terminating in an enlarged portion 9, which coöperates with the enlarged portion 10 of the outer section 7 for providing a chamber. Disposed centrally of the outer section 7 is a central bore 11, threaded a portion of its length as at 12 to receive the threads 13 of valve stem 14, operating within the bore and carrying a valve 15. This central bore 11 widens into a valve chamber 16 and narrows again as at 17 to provide a valve seat 18 to receive the valve 15, said chamber 16, however, being also in communication with an outlet spout 19.

The inner end of the valve stem 14 is threaded as at 20 to coöperate with similar threads formed within the outer hollow end of the inner valve stem 22.

A coil spring 23 surrounds the outer end of the inner valve stem, one end of said spring engaging the shoulder 24, while the outer end thereof engages the washer 25 held in position by means of the nut 26, threaded to the outer end of the valve stem 22 and consequently holds said spring 23 under tension.

Guiding members 27 are formed on the inner valve stem 22 and cause the same to be supported in proper alinement to insure the seating of valve 28 formed on the extreme lower end of the inner valve stem 22, said valve 28 being adapted to seat against the valve seat formed adjacent the inner end of the inner valve section 5. The inner end of the outer valve section 7 is threaded as at 7′ and coöperates with threads 6′ of the inner valve section. It will, therefore, be seen that by unscrewing the outer valve section 7 from the inner valve section 5 and likewise disconnecting the inner valve stem 22, the tension of the spring 23 seats the inner valve 28, thereby preventing leakage while the outer valve 15 is removed to be ground. It might be further stated that the usual packing 29 is provided adjacent the outer end of the valve and the usual operating handle 30 is connected to the outer end of the valve stem 14.

What I claim to be new is:—

A valve, comprising a casing with a chambered portion from which leads an exit nozzle and having a chambered portion at its inner end, a shell having threaded connection with said casing, and having a chambered portion in registration with the chambered end of the casing in which said shell engages, a valve stem extending through said casing and shell, and having a beveled shoulder forming a valve, the wall of the casing which separates the chamber from which the nozzle leads and the chambered portion at the end of the casing having a beveled valve seat engaged by the beveled valve upon said stem, a valve upon the end of the stem which

projects beyond the end of the shell and adapted to seat against the end of the latter, said stem having a threaded portion and having guiding members radiating therefrom and adapted to hold the valve stem in position to cause the valves to seat properly, the inner surface of said shell having a shoulder, a coiled spring mounted upon the stem and bearing against said shoulder, and a washer mounted upon the threaded portion of the stem against which the other end of the spring bears.

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

HENRY A. VORMENG.

Witnesses:

THOS. C. DONALDSON,

ALPHEUS T. ADAMS.