No. 829,458.

PATENTED AUG. 28, 1906.

C. W. BROWN.

VALVE.

APPLICATION FILED JAN. 8, 1906.

Fig. 1

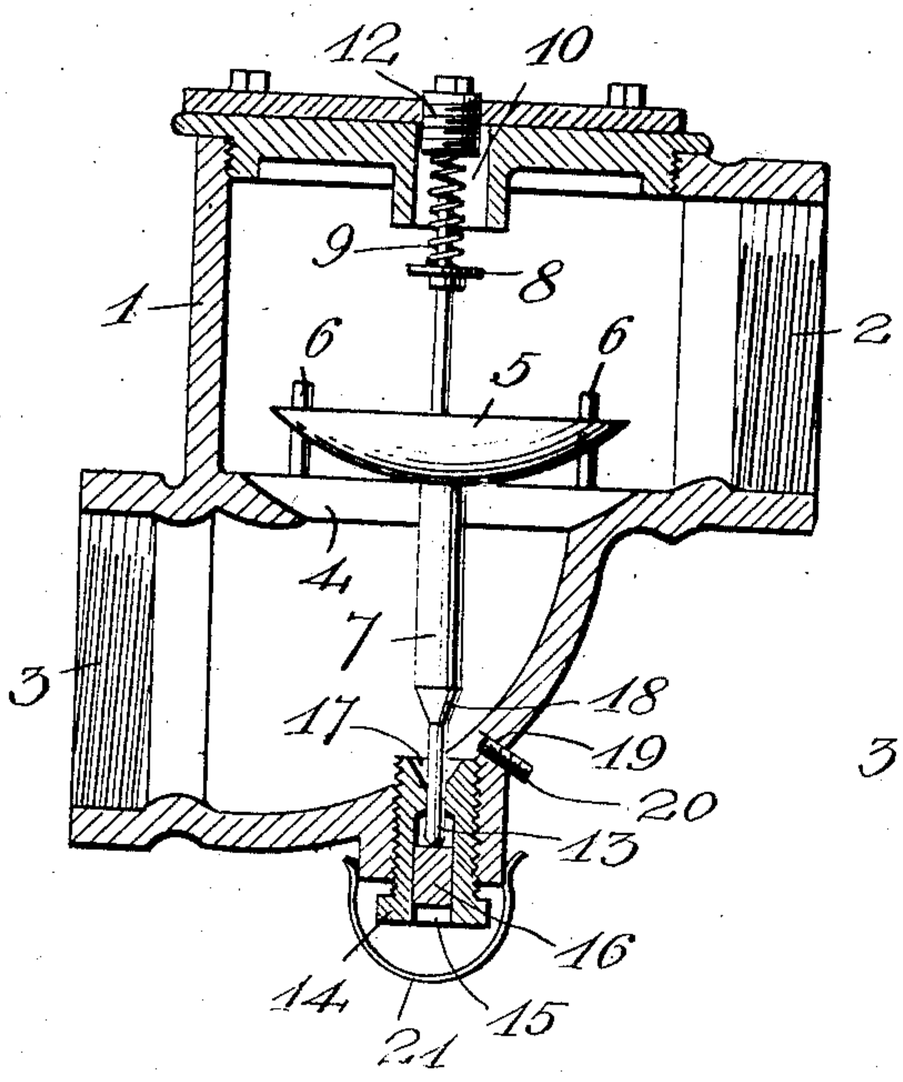
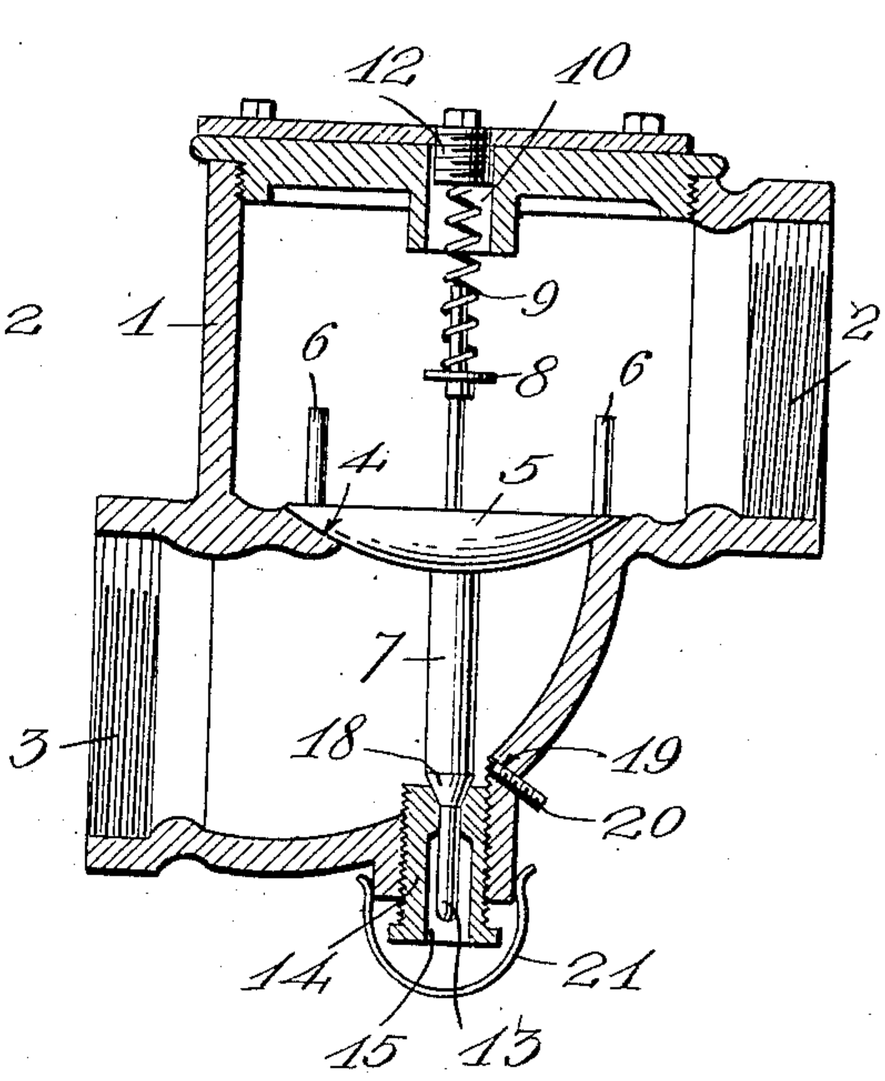


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES W. BROWN, OF SOMERVILLE, MASSACHUSETTS.

VALVE.

No. 829,458. Specification of Letters Patent. Patented Aug. 28, 1906.

Application filed January 8, 1906. Serial No. 295,135.

To all whom it may concern:

Be it known that I, CHARLES W. BROWN, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Valves; and I do 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.

This invention relates to improvements in check-valves.

The object of the invention is to provide means whereby the valve will be automatically closed in case of a fire in the building or compartment in which the same is located.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangements of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal sectional view through a valve constructed in accordance with the invention, showing the valve in open or operative position; and Fig. 2 is a similar view showing the valve closed.

Referring more particularly to Figs. 1 and 2 of the drawings, 1 denotes the valve-casing, having inlet and discharge openings 2 and 3, to which are connected the supply-pipes. Arranged in the valve-casing 1 is a valve-seat 4, with which is adapted to be engaged a valve 5. The valve-seat 4 is provided with suitable guides 6 to prevent the jamming of the valve and to guide the same in its movement to its seat.

The valve 5 is provided with a stem 7, which projects above and below the valve, as shown. The upper end of the upper portion of the stem 7 is provided with a holder 8, above which the stem is reduced, and on said reduced portion is arranged a coil-spring 9. The reduced portion of the stem and the spring 9 are adapted to project upwardly into an aperture 10, forming the removable top plate of the casing. The aperture 10 is provided with screw-threads, and into the outer end of the same is adapted to be screwed a threaded plug 12, by means of which the tension of the spring 9 may be adjusted.

The lower end of the lower portion of the valve-stem 7 is reduced, as shown at 13, and said reduced end is adapted to project into an apertured plug 14, which is screwed into a threaded opening in the lower side of the valve-casing, as shown. The plug 14 is provided with a centrally-disposed passage or aperture 15, into which is inserted a fusible plug 16, upon which the lower reduced end of the stem 7 is adapted to rest. Said fusible plug when intact holds the valve 5 in an open position. The inner end of the aperture in the plug 14 flares outwardly to form a seat 17 to receive the conical-shaped shoulder 18 at the upper end of the reduced portion 13 of the stem when the valve is in closed position. In the side of the valve-casing adjacent to the inner end of the plug 14 is formed a drip-hole 19, normally closed by a screw-plug 20. Below the plug 14 and secured to or formed on the casing is a guard-strip 21.

A valve constructed and arranged as herein shown and described is particularly adapted for use in connection with gas-supply pipes, whereby should a fire occur in the apartment in which the same are located the fusible plugs in the valve-casing will be melted, thus allowing the valve to close and cut off the flow of gas and preventing an explosion. The valves are preferably conical in shape and are adapted to engage conical-shaped seats, whereby a minimum amount of gas is permitted to escape during the closing of the valve.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined by the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The herein-described valve consisting of a casing having an inlet and an outlet opening therein, and a partition between said openings, a valve-seat formed in said partition, guides surrounding said seat, a valve, a stem secured to and projecting above and below said valve, a spring arranged on said stem above the valve to force the latter to a closed position, a threaded plug screwed into a threaded opening in said casing to adjust the tension of said spring, a hollow threaded plug

seated in an opening in said casing to receive the reduced end of the stem upon the opposite side of the valve, a fusible plug inserted in a recess in said hollow plug to normally support said valve-stem and the valve in an open position and a guard to protect said hollow fusible plug, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES W. BROWN.

Witnesses:
JOHN F. BRIRY,
J. A. STAPLES.