

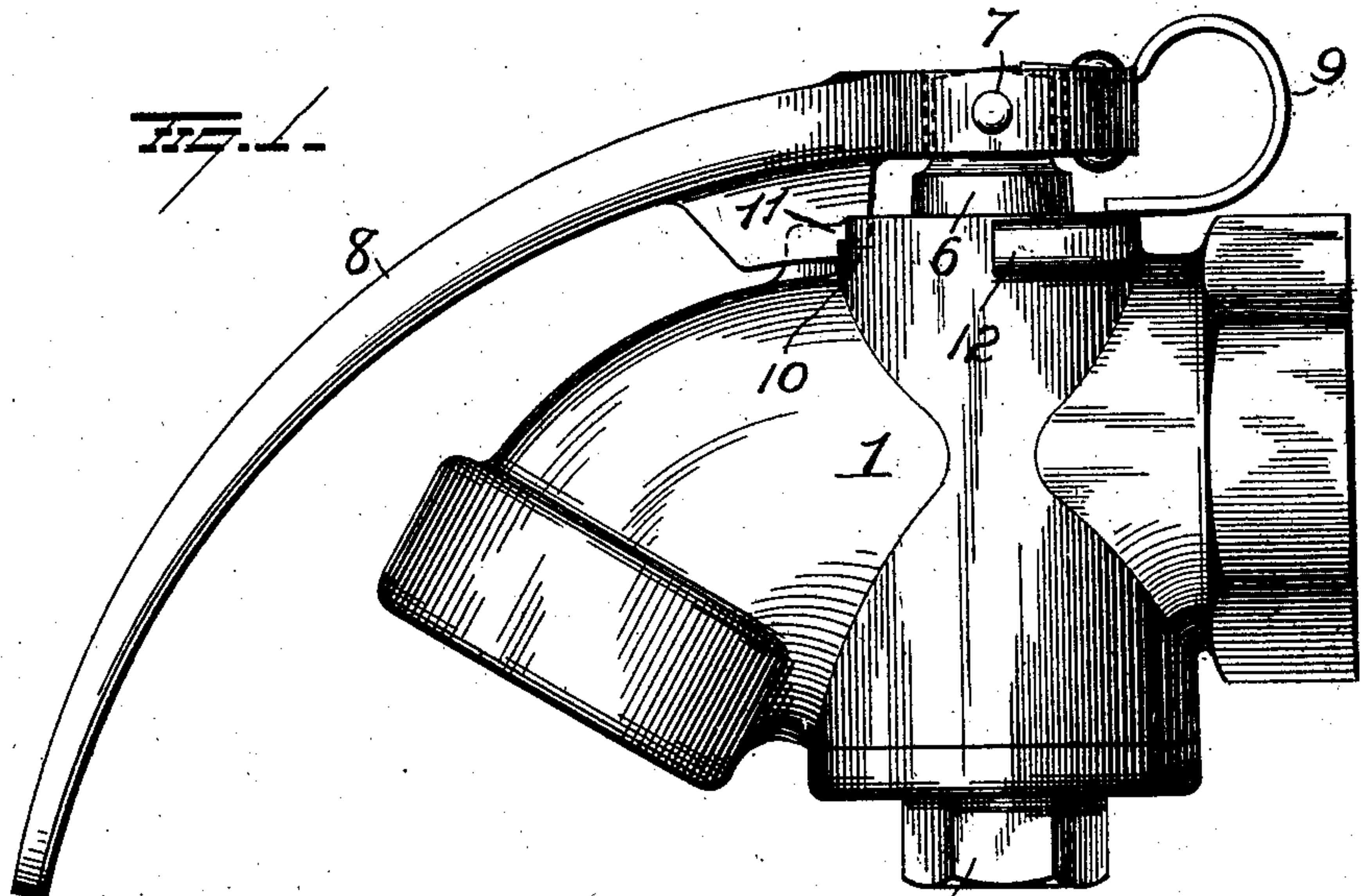
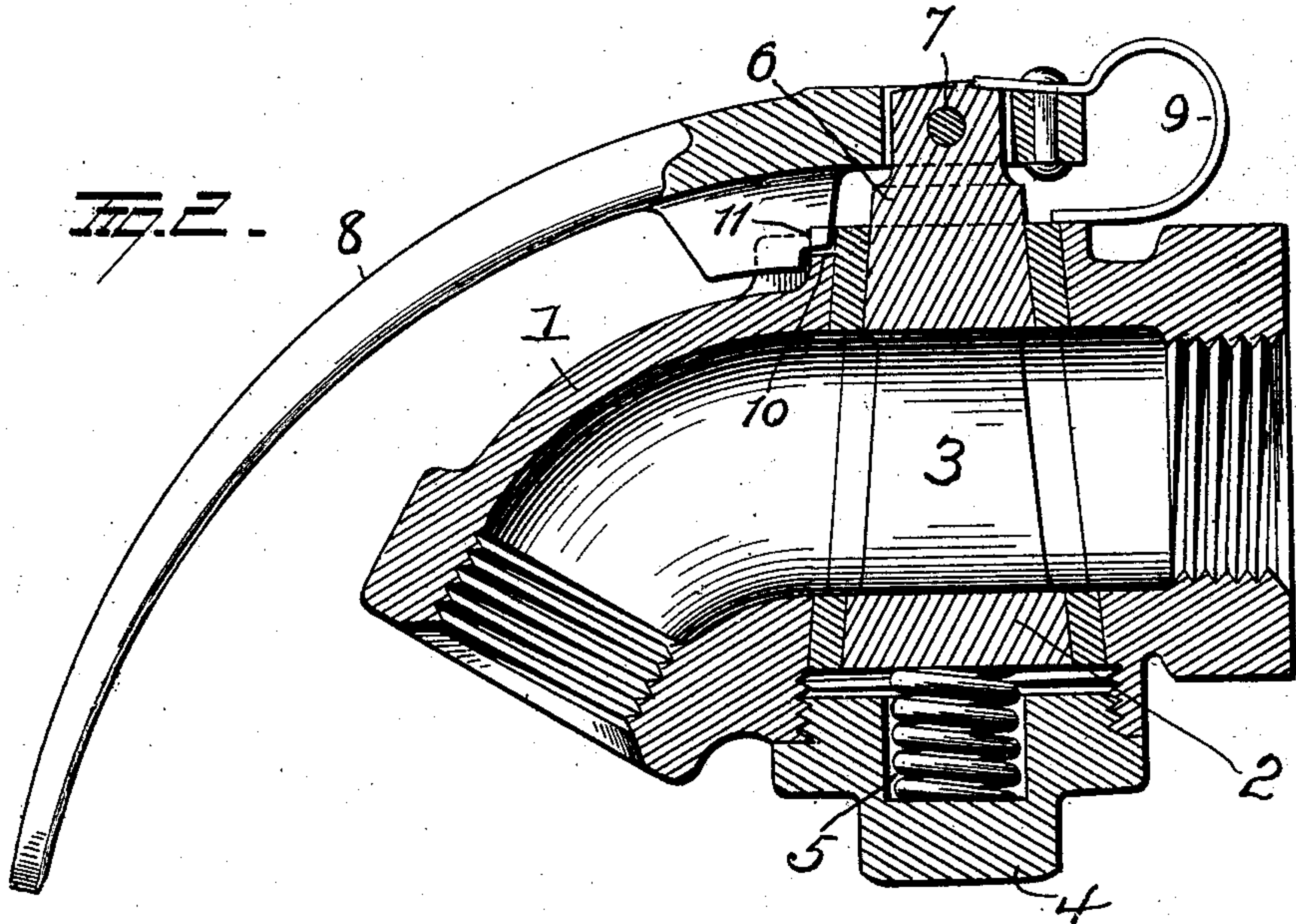
No. 859,839.

PATENTED JULY 9, 1907.

H. R. PRICE.
STOP COCK.

APPLICATION FILED JUNE 12, 1906.

2 SHEETS—SHEET 1.



WITNESSES

E. Nottingham
G. J. Downing

INVENTOR

H. R. Price
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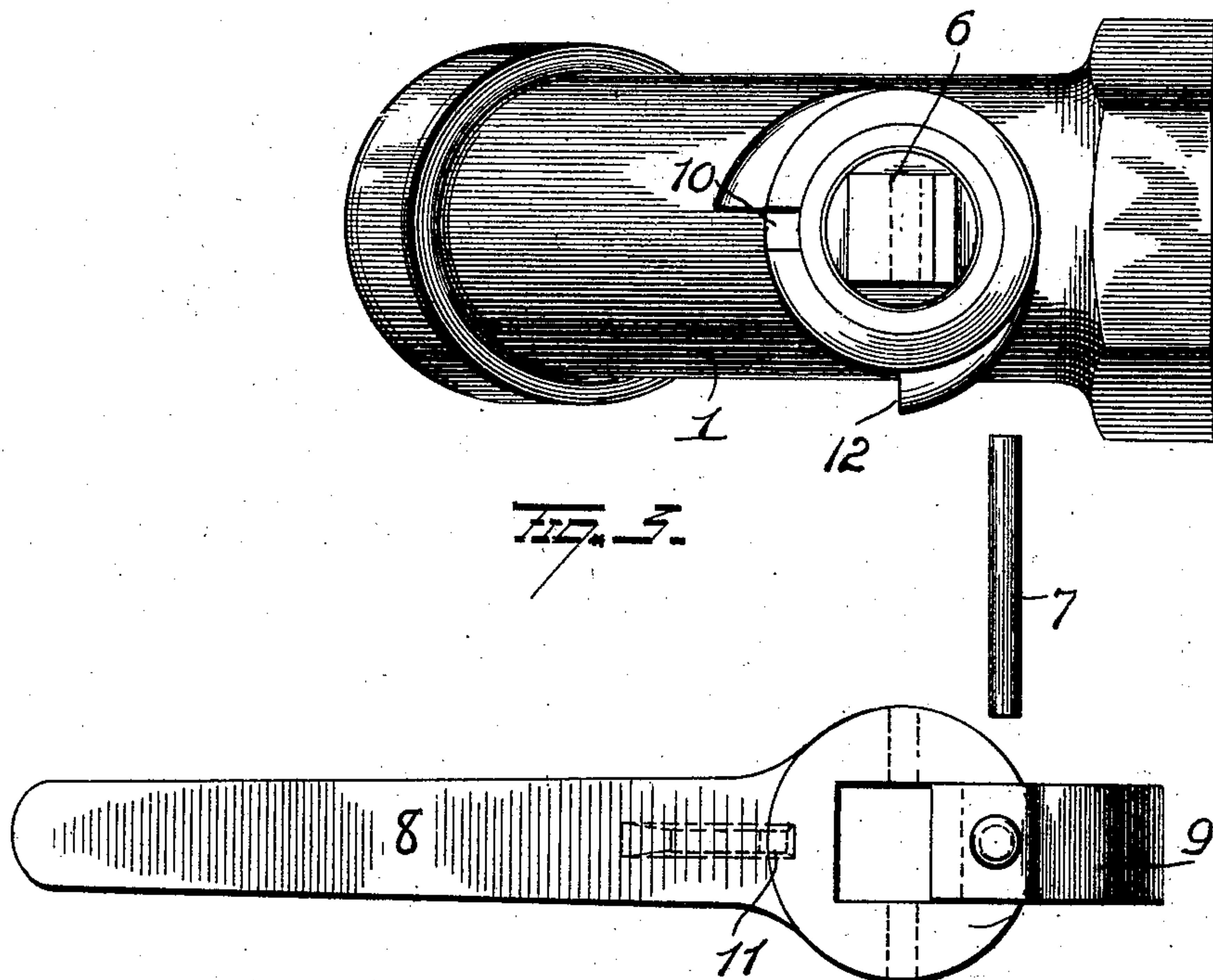
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INVENTOR

H. R. Price
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Attorney

UNITED STATES PATENT OFFICE.

HERBERT R. PRICE, OF WASHINGTON, DISTRICT OF COLUMBIA.

STOP-COCK.

No. 859,839.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed June 12, 1906. Serial No. 321,354.

To all whom it may concern:

Be it known that I, HERBERT R. PRICE, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Stop-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.

My invention relates to an improvement in stop-cocks and more particularly to angle-cocks employed for coupling flexible sections of steam or air pipes or tubes, such as are commonly used on steam railroad cars, with the metal pipes or tubes carried on the under sides of the car bodies.

The object of the invention is to provide simple and inexpensive means for locking the valve controlling handle in its normal position and against accidental displacement, without the aid of keys or other devices in the care of the trainmen, or without in any manner interfering with the ready manipulation of the valve controlling handle by the trainmen.

With this end in view my invention consists in certain novel features of construction and combinations and arrangements of parts as will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of an angle-cock embodying my invention. Fig. 2 is a view in section of the same, and Fig. 3 is a plan view, the operating handle being removed.

In the practice of my invention I provide a body or shell 1 of longitudinally curved or angular form, and having its ends suitably adapted, as by being internally threaded, for connection to two lines of piping at an angle one to the other. A tapered or conical valve 2, in which is formed a transverse fluidway or passage 3, is fitted and with the capacity of free axial rotation in the body or shell 1, and according as its fluidway is turned into line with or transversely to the longitudinal passage extending through the shell or body, serves to open or close, as the case may be, communication through the body between the connected lines of piping.

Located within the valve casing below the valve, and resting on the screw cap 4, which closes the lower and larger end of the valve chamber is the spring 5 which tends to normally force the conical valve upwardly within the casing and hold it in close contact with the walls of its casing or a bushing within the casing thus compensating for all wear on the valve or its casing. The stem 6 of the valve 2 passes through a circular opening in the top of the valve casing, the upper end of said stem being made angular as shown. Pivoted to the angular end of stem 6, by a pin or bolt 7, is the operating lever 8. This lever or handle rests over the curved section of the shell and is bent so as to rest well up to the shell as shown.

Secured to the hub of the handle is the heavy flat spring 9. This spring is bent upwardly, rearwardly and downwardly into loop form, and its free end projects forwardly, or in a direction toward the handle, and rests and moves on the upper surface of the valve casing or shell. This spring forces the handle and the attached valve upwardly, and assists the spring 5 in holding the valve to its conical seat, or the spring 5 may be dispensed with altogether and the valve held to its seat by the spring 9. This spring is in line with the handle in the rear of the pivotal bolt 7, hence the tendency of the spring 9 is to force the handle toward the shell or casing. The shell or casing is provided in its upper surface with a recess 10 in which the lug 11 formed on the lower face of the lever or handle rests when the valve is open. Hence it will be seen that by throwing the lever to a position to open the passage-way, the lug is brought to a position over the recess 10 in the valve casing and when this position is reached the spring 9 rocks the lever on its pivot and forces the lug into the recess and absolutely locks the lever against the possibility of accidental displacement. To turn the valve, the free end of the lever or handle is elevated against the pressure of the spring 9 until the lug 11 leaves the recess 10, and then by turning the lever the valve will be closed, a shoulder 12 on the casing serving as an abutment for the lug 11 and stopping the lever when the valve is in its closed position.

In any position of the valve, the frictional contact of the free end of the spring 9 with the top of the valve casing will under ordinary conditions be sufficient to prevent accidental movement of the valve, but with the valve open, the free end of lever must be elevated against the pressure of the spring and the lever turned while in such elevated position before the valve can be closed, consequently accidental movement of the valve when in this position is rendered practically impossible.

It is evident that changes in the construction and relative arrangements of the several parts might be made without avoiding my invention and hence I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but,—

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

1. The combination with a valve and valve casing, the stem of the valve projecting beyond one end of the casing, of a lever pivoted to the projecting end of the stem, and a spring carried by said lever and resting and moving in contact with the adjacent end of the valve casing.

2. The combination with a valve casing having a conical seat and a conical valve within said casing, a stem at the smaller end of the valve and projecting through the casing, of a lever pivoted to said projecting end and a spring secured to said lever and bearing against the adjacent end of the valve casing.

3. The combination with a valve casing having a conical seat and a conical stem at the smaller end of the valve

projecting through said casing, of a lever pivoted to the projecting stem, and a spring secured to the hub of said lever and bearing and moving against the adjacent end of the casing.

- 5 4. The combination with a valve casing having a conical seat, and a recess in its upper edge, and a conical valve within said casing, a stem at the smaller end of the valve projecting through said casing, of a lever pivoted to the projecting stem, and provided with a depending lug adapt-
10 ed to enter the recess in the top of the valve casing and a

spring carried by said lever and bearing and moving against the top of the casing, the said spring tending to pull the valve upwardly and force the handle end of the lever downwardly.

In testimony whereof, I have signed this specification in 15 the presence of two subscribing witnesses.

HERBERT R. PRICE.

Witnesses:

J. R. RANNER,

JOSEPH C. MORGAN.