

No. 791,256.

PATENTED MAY 30, 1905.

C. DURRANT.
GLOBE VALVE.

APPLICATION FILED FEB. 17, 1904.

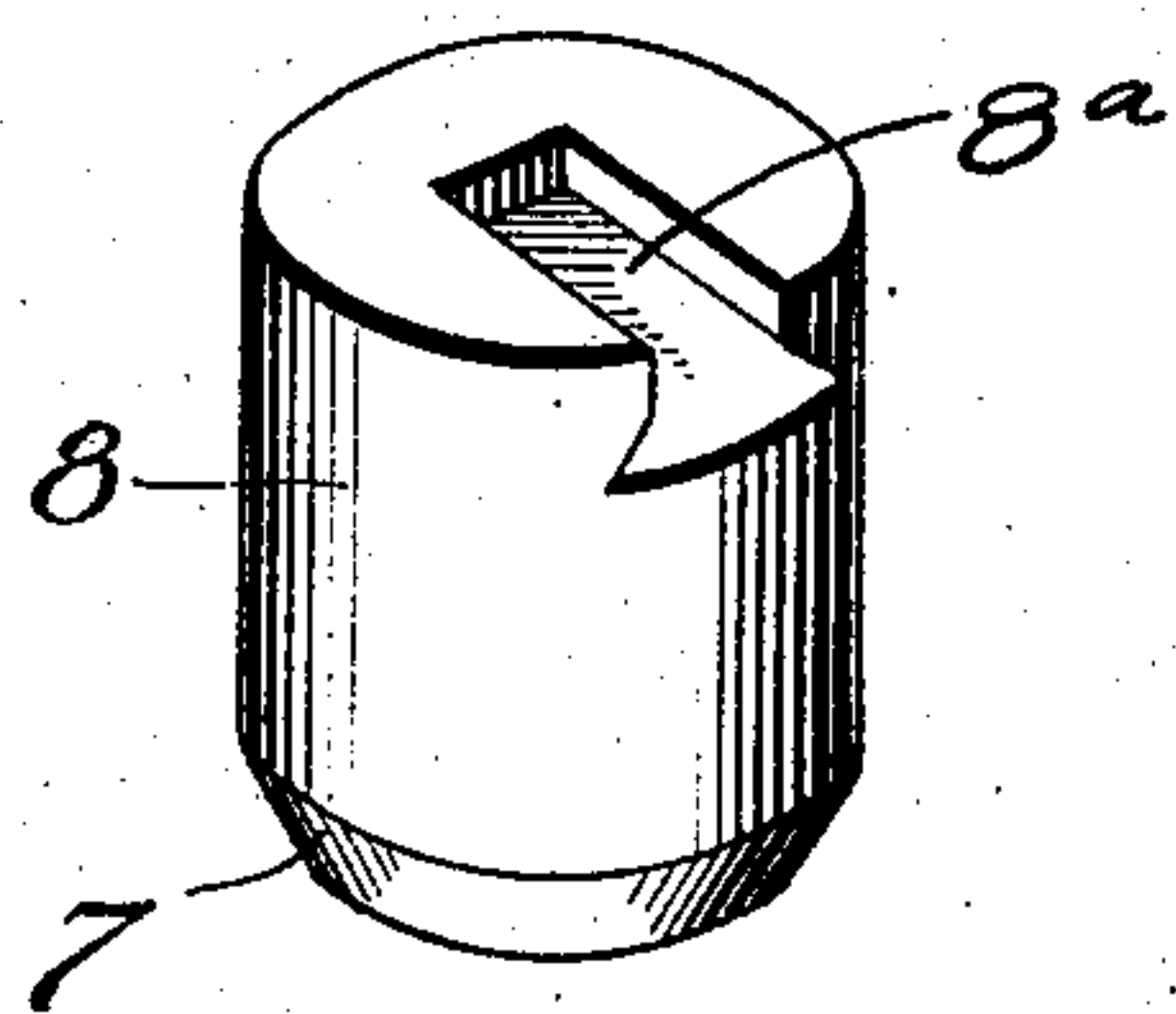
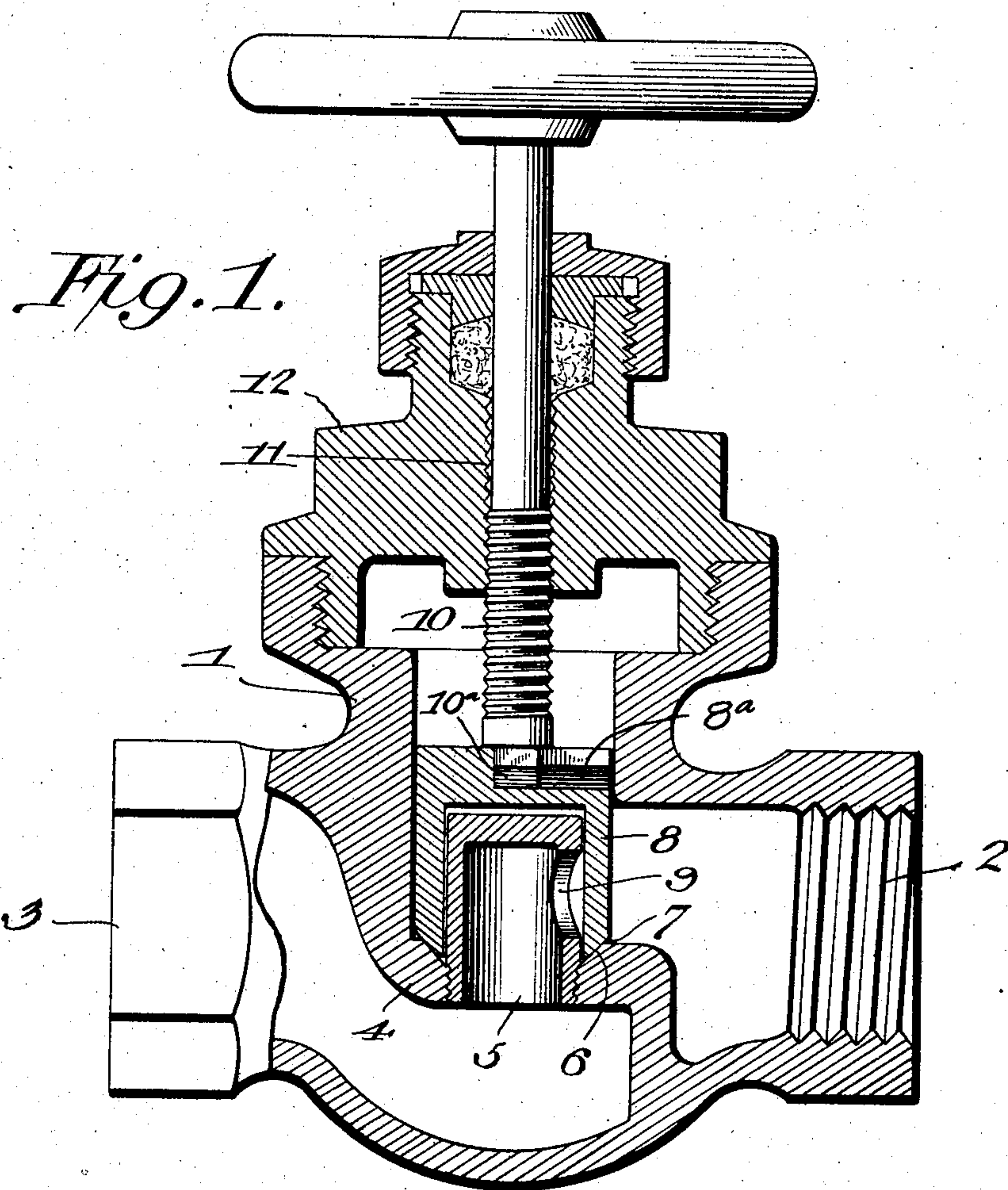


Fig. 2.

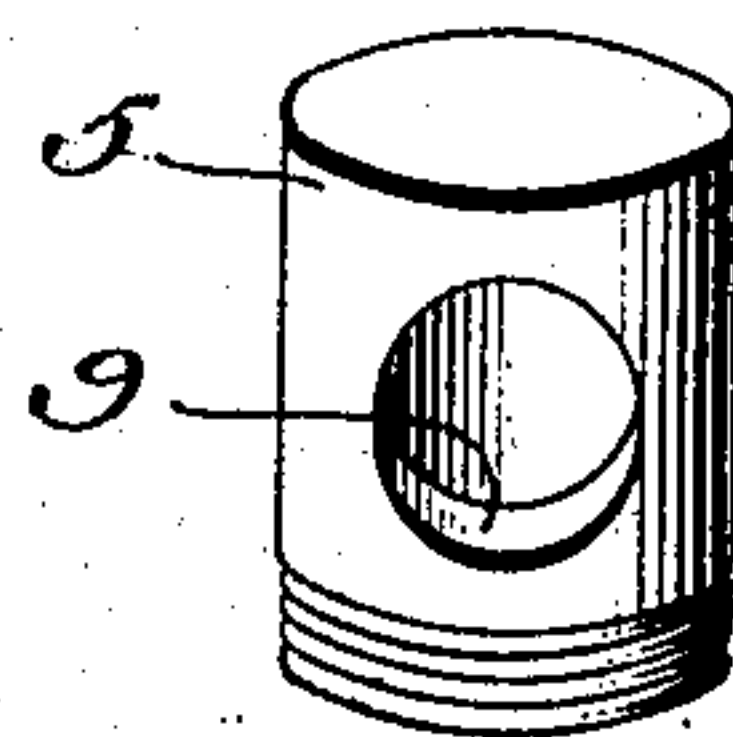


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

CLARENCE DURRANT, OF MARINE CITY, MICHIGAN.

GLOBE-VALVE.

SPECIFICATION forming part of Letters Patent No. 791,256, dated May 30, 1905.

Application filed February 17, 1904. Serial No. 194,081.

To all whom it may concern:

Be it known that I, CLARENCE DURRANT, a citizen of the United States, residing at Marine City, in the county of St. Clair and State of Michigan, have invented a new and useful Globe-Valve, of which the following is a specification.

My invention relates to valves, and especially to the class known as "globe-valves," and has for its objects to produce a comparatively simple inexpensive device of this character in which the valve may be readily operated and moved freely to and from its seat and when in seated position will act to effectually cut off the flow of liquid or fluid through the casing.

To these ends the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a central sectional elevation through a valve embodying my invention. Fig. 2 is a detail perspective view of the valve. Fig. 3 is a similar view of the valve-guide.

Referring to the drawings, 1 designates a hollow valve casing or globe provided with oppositely-disposed inlet and outlet ports 2 3 and upon its interior with a division-web or partition 4, arranged between said ports and constituting a valve-seat into which is tapped the lower end of a tubular valve-guide 5, the seat being provided around the guide with an inwardly beveled or inclined seating-face 6, adapted to register with a similarly-beveled face 7, provided on the inner end of a valve 8, movably disposed upon the guide member 5. This member on which the tubular valve is mounted for free reciprocation and which serves to guide the latter in its movements has its upper or outer end closed, its inner or seat-engaging end open, and is provided through its side wall with an opening or passage 9, whereby communication is established between the ports 2 and 3 through the said guide. The upper or outer closed end of the valve 8 is provided with a dovetail recess 8^a, which extends slightly more than one-half across the valve and is engaged by a similarly-shaped terminal 10^a on the inner

end of a valve-stem 10, mounted, as usual, in a suitable stem-guide 11, provided in the plug or closure 12, which, as customary, is removably tapped into the valve-casing for permitting access to or removal of the valve. By the provision of the open-sided dovetail recess and the dovetail extension 10^a on the valve-stem connection of the valve and the stem may readily be effected, and, further, the valve is caused to travel and be revolved with the stem, thereby to cause it to seat itself true upon the valve-seat.

In practice when the valve 8 is in closed or seated position its beveled end will bear tightly upon the seating-face 6, while the body of the valve will inclose the guide member 5, thus forming a closure for the opening 9 and effectually cutting off communication between the ports 2 and 3. When, however, the valve is moved to open position, said passage 9 will be uncovered or opened and communication established between the ports through the tubular member 5. Attention is especially directed to the fact that in practice the valve is free from positive engagement with the member 5 and may therefore move readily on the latter, thus to insure rapid opening or closing of the valve, and, further, that the valve is fixed for rotation with its stem, whereby the valve in moving to open and closed positions will grind the faces 6 and 7 one upon the other, and thus maintain a tight joint.

From the foregoing it is apparent that I produce a simple inexpensive device which is admirably adapted for the attainment of the ends in view; but it is to be understood that I do not limit myself to the precise details herein set forth, as minor changes may be made therein without departing from the spirit of the invention.

Having thus described the invention, what is claimed is—

The combination with a casing having inlet and outlet ports and a web or partition between the ports, of a tubular guide member secured in the partition and having a lateral passage to establish communication between the ports, the web or partition surrounding

the guide member being dished to present a
valve-seat, a rotary valve housing the guide
member and having its lower end beveled to
engage the seat, and its upper end provided
5 with an open-sided dovetail recess, and a
valve-stem having a dovetail-shaped terminal
to engage the recess.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

CLARENCE DURRANT.

Witnesses:

WILLIAM BAIRD,
DANIEL WEBSTER.