J. G. GLADDING.

WATER GATE.

APPLICATION FILED APR. 20, 1908.

937,368. Patented Oct. 19, 1909.

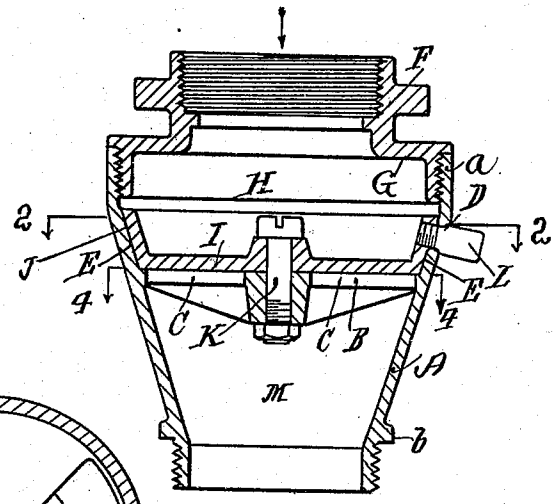

FIG. 1.

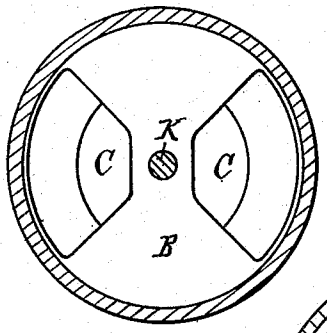

FIG. 4.

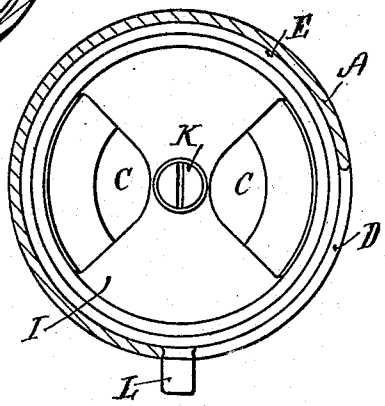

FIG. 2.

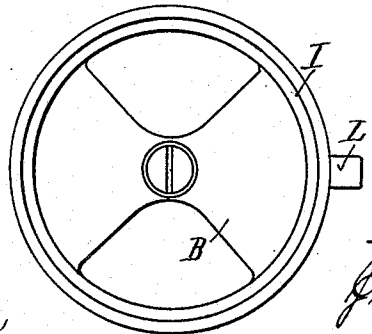

FIG. 3.

WITNESSES

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WATER-GATE.

937,368. Specification of Letters Patent. Patented Oct. 19, 1909.

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To all whom it may concern:

Be it known that I, JESSE G. GLADDING, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Water-Gates, of which the following is a specification.

It is the object of my invention to provide a water gate and its containing shell, so constructed and arranged that when applied to a line of hose and provided with a playing nozzle, the said nozzle may be easily held and controlled by a single fireman when playing a full stream of water upon the fire. And my invention consists in the improved construction of the gate and its containing shell whereby the stream of water after passing through the gate is properly guided, as hereinafter set forth.

In the accompanying drawings, Figure 1 represents an axial section of my improved water gate, adapted for use in combination with a hose pipe, the gate being shown as closed. Fig. 2 represents a section taken in the line 2, 2, of Fig. 1, the gate being shown as open. Fig. 3, represents a plan view of the gate removed from the outer shell, and in the position shown in Fig. 1. Fig. 4 represents a section taken in the line 4, 4, of Fig. 1.

In the drawing, A represents the conically tapering outer shell, B a diaphragm made integral with the shell and provided with the ports C, C, through which the water is caused to pass, and also with a slot D extending through the limit of a quadrant of the tapering shell. The shell A is also provided with a conically beveled seat E, and at its larger end *a* receives the screw threaded head F, having an annular shoulder G, thus forming a chamber H for the gate I, the said gate being provided with a conically beveled periphery J which fits the conically beveled seat E of the shell, and is held to its seat by means of the pivot bolt K which passes through the center of the perforated diaphragm B. The gate I is also provided with the stud L, which projects outward through the slot D, and by means of which the said gate I may be turned on its axis through a space of about ninety degrees, or to the extent of the slot D of the shell.

When the gate is opened as shown in Fig. 2 the water from the source of supply will pass into the chamber H, and through the ports C, C, of the diaphragm B, and through the conically formed chamber M of the shell A. And when a playing nozzle is screwed onto the smaller end *b* of the shell A, the pressure of the water rushing through the said chamber H, ports C, C, and chamber M, will be so distributed as to cause the said nozzle to be easily held and controlled by a single fireman.

My improved water gate may be employed in connection with any line of piping as desired, and when employed as a hydrant gate, then in case of accident like the bursting of the hose, the gate may be instantly closed by means of the projecting stud L and damage prevented.

I claim as my invention:

1. The combination of a tapering shell provided with a conically beveled seat, a slot, and a perforated diaphragm, with a rotary gate beveled at its periphery to fit the beveled seat of the shell, and provided with a stud which extends outward through the slot of the said shell, and serves as a means for opening or closing the gate, substantially as described.

2. The combination of a tapering shell provided with a conically beveled seat, a slot, a perforated diaphragm, and a pivot bolt held in the diaphragm, with a rotary gate secured to the diaphragm by the pivot bolt, and beveled at its periphery to fit the beveled seat of the shell, and provided with a stud which extends outward through the slot of the said shell, and serves as a means for opening or closing the gate, substantially as described.

3. The combination of a tapering shell provided with a conically beveled seat, a slot, a perforated diaphragm, and a pivot bolt held in the diaphragm, with a rotary gate secured to the diaphragm by the pivot bolt, and beveled at its periphery to fit the beveled seat of the shell, and provided with a stud which extends outward through the slot of the said shell, and serves as a means for opening and closing the gate and the head attached to the larger end of the shell to form a chamber for the gate, substantially as described.

JESSE G. GLADDING.

Witnesses:
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