2 Sheets—Sheet 1.

F. B. STEVENS & J. L. BOND.

Hydrant Valve.

No. 198,756. **Patented Jan. 1, 1878.**

FIG. 1.

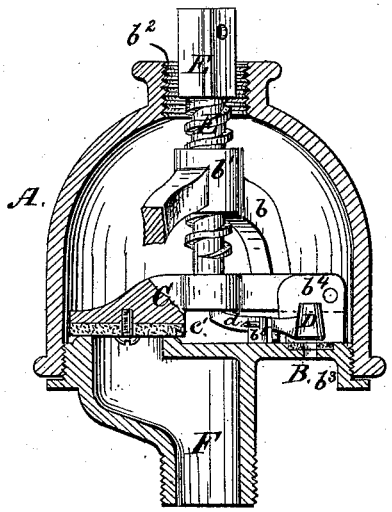


FIG. 2.

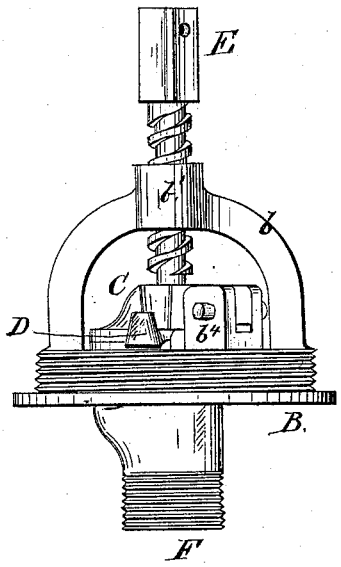
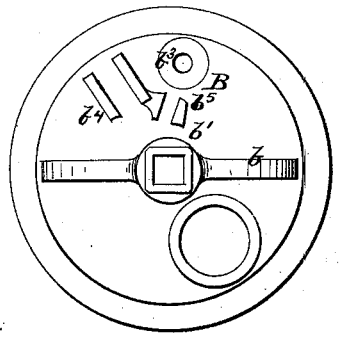


FIG. 3.



WITNESSES

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2 Sheets—Sheet 2.

F. B. STEVENS & J. L. BOND.

Hydrant Valve.

No. 198,756. Patented Jan. 1, 1878.

FIG. 4.

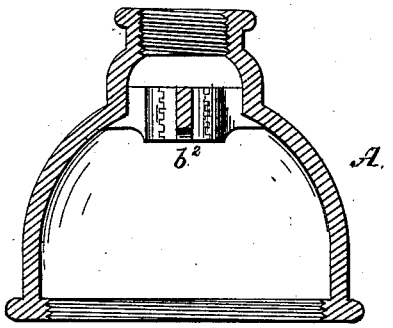


FIG. 6.

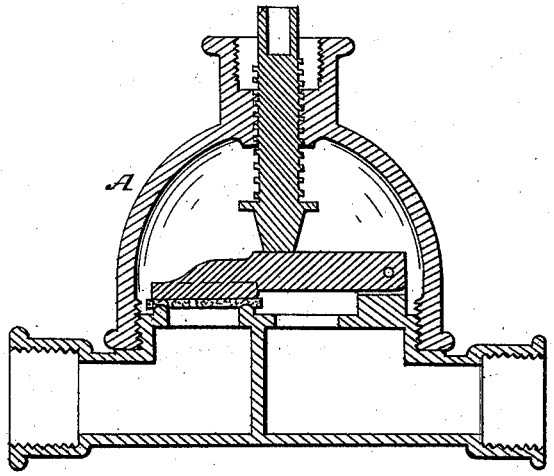


FIG. 5.

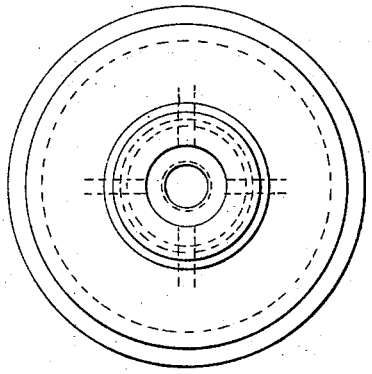
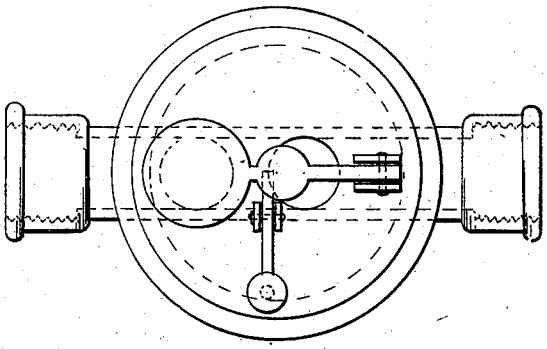


FIG. 7.



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ATTORNEYS

UNITED STATES PATENT OFFICE.

FRANKLIN B. STEVENS AND JOSEPH L. BOND, OF PORT HURON, MICH.

IMPROVEMENT IN HYDRANT-VALVES.

Specification forming part of Letters Patent No. **198,756**, dated January 1, 1878; application filed November 22, 1877.

To all whom it may concern:

Be it known that we, FRANKLIN B. STEVENS and JOS. L. BOND, of Port Huron, in the county of St. Clair and State of Michigan, have invented certain new and useful Improvements in Hydrant-Valves; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

In the drawings, Figure 1 is a vertical section of our invention. Fig. 2 is a side elevation of the valve-plate and attachments, and Fig. 3 is a plan of the valve-plate with valves removed.

A is a bell-shaped casing, suitably constructed to receive the water-pipe and the valve-plate, hereinafter described. B is the valve-plate, constructed with an arched brace, *b*, in which is the threaded bearing b^1 for the screw-stem E, which closes the cut-off valve C when it is desired to stop the flow of water. It is provided with the hollow nipple b^2, to which is attached the service-pipe, a waste-opening, b^3, and bearings b^4 b^5, to which are pivoted the valves C and D. Its periphery is threaded, so that it may be screwed into the casing, as shown. C is the cut-off valve. It is pivoted or hinged to the bearing b^4, and is provided with a suitable packing, *c'*. Its shaft or arm passes centrally under the arched brace *b*, so that the stem E may be turned down upon it when it is desired to close the service-pipe. D is the waste-valve. It is pivoted to the bearing b^5, and, when closed, rests on and closes the waste-opening b^3. It has an extension, *d*, which passes under the shaft of the cut-off valve, so that when the valve C is closed, as shown in Fig. 1, it will bear on the extension *d*, raise the valve, and open the waste-opening b^3. E is the screw-stem. It is provided on its upper end with any suitable means whereby it may be turned up or down in its bearing b^1, for the purpose of releasing or closing the valve C.

When the screw-stem E is turned down, it will close the cut-off valve C, the shaft of which will engage the extension *d*, and raise the valve D, and open the waste-opening b^3, so that all the water above the valve-plate B may readily escape, and thus prevent freezing.

When the screw-stem E is turned up, the valve C is released and raised by the pressure of water, the extension *d* will be disengaged, and the valve D will close the waste-opening b^3.

F is a nipple, projecting from the under side of the valve-plate B, and threaded to screw into an elbow upon the supply-pipe. This is for the purpose of screwing onto and removing from the supply-pipe, under ground, the valve-plate and casing without digging.

This device may be constructed without the arched brace *b* by casting the threaded bearing b^1 in the hollow nipple b^2, attaching it to the sides of the nipple by means of two or more arms, as shown in Figs. 4 and 5.

The valve-plate with its valves may be so constructed as to serve for a stop and waste valve, in which use the casing would be cast so as to leave no opening around threaded bearing of screw-stem, and the valve-plate would be provided with inlet and outlet openings, communicating with inlet and outlet pipes, as shown in Figs. 6 and 7.

The device can be applied to hydrants, street-washers, stop and waste valves, and shut-off valves.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

The improved hydrant-valve consisting of the casing A, valve-plate B, constructed with the arch *b* and bearing b^4 b^5, cut-off valve C, waste-valve D, having extension *d*, and projecting nipple F, substantially as set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

FRANKLIN B. STEVENS.
JOSEPH L. BOND.

Witnesses:
MARCUS YOUNG,
BENJAMIN LANGOR.